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ABSTRACT

Designed for use as a resource by state and local level vocational education professionals and policymakers, this report provides information pertaining to the current economic conditions within Texas, the nature and measurement of economic activity, prevailing economic trends, and projections for the future. Outlined first are current economic conditions within the state and the perspectives of representatives from the state's political, educational, business/industry, and banking communities. In a detailed examination of economic development of Texas state planning regions the following topics are covered: the nature and measurement of economic activity, national and state economic trends, future economic trends in Texas, economic development in each of the 24 Texas state planning regions, the economic ranking of the regions, recapitulation of the regional economies, local economic development allies, and regional population projections. Tables summarizing the percentage of total personal income and local quotients for 14 sources of income are included for each of the 24 planning regions. Appended to the report are lists of the component counties of each Texas state planning region. (Other Education for Work Linkage Project reports are available separately--see note.) (MN)

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THE TEXAS ECONOMY: POTENTIAL FOR JOB TRAINING

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PREFACE

The Education-for-Work Linkage Project, sponsored by the Texas Department of Community Affairs, in cooperation with the Texas Engineering Experiment Station and Texas A&M University, College of Education, has an overall goal of studying and strengthening potential and actual linkages between the various job training systems in Texas, as well as between job training systems and the private sector. Four purposes underly all products of the project:

1. Develop a statewide information base for vocational education services provided in Texas;
2. Create an information exchange network for program delivery agents;
3. Provide technical assistance and training to persons involved in vocational education services; and
4. Provide policy research and program evaluation documents focusing on critical issues and concerns of the vocational education community.

This report is to be used as a resource by policy makers to reflect on the present and projected economic climate of the state. The first section of the document provides a general overview of current economic conditions within Texas. The information presented in this instance was gathered from recent articles in national publications such as The Wall Street Journal and Forbes magazine. In addition, comments made at the Texas Lyceum 1980 were included because they reflect the perspective of state leadership comprised of representatives from the political, educational, business/industry, and banking communities.

In discussing the economic development of the 24 state planning regions in the state, attention was focused on the nature and measurement of economic activity, prevailing economic trends (both state and national), and projections for the future. Also, information specific to each of the 24 planning regions has been presented for review. Finally, rankings of the regions in terms of their dependence on the respective sectors of economic activity have been presented.

ACKNOWLEDGEMENTS

Several members of the Education-for-Work Project staff have been responsible for the development of this report. Charles Zlatkovich had primary responsibility for gathering the economic data. John Skinkle and Louis Jeffries assisted with the preparation of the textual materials. In addition, Russell Kitchner provided a valuable critique and assisted with the editing of the report. Also, Lewis Earl provided significant input with respect to the current economic climate in Texas and the implications for continuing growth and development.

Finally, the assistance and support which was given by personnel from the Texas Department of Community Affairs - Mr. L. C. Harris, III; Mr. Armando Diaz; and Ms. Robin Roberts - has been greatly appreciated.

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THE ECONOMIC CLIMATE OF TEXAS: A GENERAL OUTLOOK

During the 1970s, the State of Texas emerged as an economic trendsetter within the nation; for the first time, data on many important economic indicators illustrated that the state had exceeded national averages. Since World War II, the state has become increasingly industrialized, more metropolitan and more diversified in its economic base. As expected, a number of factors have facilitated the economic growth which has been sustained at an unprecedented rate since the mid-1960s. Presently, the "health" of the Texas economy is widely regarded as being very sound.

For one thing, the excellent economic performance of the state is closely linked to rapid population growth. The preliminary population count for Texas in 1980 indicated a substantial increase (approximately 20 percent) above that of 1970. With an increasing proportion of this population growth being the result of people moving to the South from other parts of the country, Texas has become the third largest state with over 6 percent of the nation's people. This growth trend is anticipated to continue and there are predictions that there will be between 18.5 and 20 million people living in Texas by the next century.

Concomitantly, the tremendous growth in population has helped to increase the state's ranking with respect to other important economic indicators. For instance, Texas now ranks second in retail sales; seventh in value added by manufacturing; second in construction contracts; first in the value of mineral production; third in gross farm income; third in non-agricultural employment; first in cargo shipped; and third in personal income. (By 1979, the per capita personal income had risen

above the national average.)*

Employment growth has also been rapid; there have been more manufacturing jobs generated in Texas during the 1970s than in any other state, and forecasts indicate that Texas is likely to maintain this growth leadership. More specifically, an annual growth rate of 4.9 percent (almost twice the national growth rate) has resulted in a non-agricultural employment increase from 3.6 million in 1970 to 5.8 million in 1980. Consequently, Texas moved from sixth to third place in non-agricultural employment among the more populace states. At the same time, the unemployment rate in the state was among the lowest in the nation. During recent years, Texas has had the lowest unemployment rate among the most populace states, and this situation is unlikely to change during the 1980s.

In Texas, the availability of jobs and work opportunities have also caused an in-migration to the state. The continuation of these favorable influences may depend on the continued flexibility in the allocation of factors of production. On the other hand, unemployment rates for Texas, in the aggregate, have been below the national average, but some cities and several localities have experienced a high level of joblessness. Therefore, companies have also been attracted to expand or locate in Texas because of the availability of relatively inexpensive labor.

Population growth and employment potential have reinforced each other. These forces require close analysis and policy responses if the factors favorable to growth are to continue. In addition, a reliable work force that reflects a "traditional" work ethic philosophy is often attributed as a reason for business location in Texas. The general lack of strong

*NOTE: Much of the information presented in this introductory section was gleaned from a report prepared in December 1980 for the Joint Economic Committee, Congress of the United States. The document was titled "A Growth Economy in Transition: Texas in the 1970s and 1980s."

labor unions and competitive state and local taxes are other factors often mentioned for the growth in the state. Transportation facilities, central location, and accessibility to both raw materials and consumer markets are other factors responsible for the recent growth. Still other encouragements to new industry include "abundant (and less expensive) energy supplies, roomy industrial parks, and low-interest local industrial development bonds" (The Wall Street Journal, December 1, 1980, p.1). Projections of future growth for the state, a planning region, or any city must include the consideration of the previously identified factors and others impacting world market trends and policies.

The growth of the non-agricultural sector will not, however, come at the expense of agriculture. Texas remains the nation's third largest agricultural producer. Gross farm income exceeded \$10 billion in Texas for the first time in 1979, with strong cattle prices and a good cotton harvest playing important roles. In addition, Texas ranks among the top ten states for 14 of the 20 most valuable farm commodities marketed in the nation. As such, this diversity will substantially support the Texas economy during the next decade.

But, at the same time, manufacturing is one of the most rapidly growing sectors of the Texas economy, with manufacturing employment increasing from nearly 740,000 at the beginning of the 1970s to approximately 1,022,500 at the end of the decade. As such, the 38 percent increase in manufacturing employment compared extremely favorably with the 8.2 percent gain during the ten-year period for the nation as a whole. In recent years, Texas has also led the nation in capital investments for manufacturing. Coupled with the rapid growth of employment, the growth rate of industrial production exceeded the national growth in 1979, and substantially increased in 1980.

As another example, "during the first six months of 1980, in the midst of a national recession, ground was broken for 165 new manufacturing plants in Texas, an increase of 94% from the like period of 1979." During the 1970s, "more than 200 companies relocated their headquarters to the Houston area, creating nearly 600,000 jobs." In 1980, a slow year by Houston's standards, "builders put up 36,730 dwellings,...more than the housing totals that all but five entire states recorded" (The Wall Street Journal, December 1, 1980, p.1).

However, nothing has symbolized and contributed more to the prosperity of Texas than oil and natural gas exploration and refining. With the deregulation of crude oil prices and the worldwide escalation in the demand and price for oil, along with the depletion of fossil fuel reserves, the price per barrel of crude oil has risen ten-fold in seven years. As a consequence, the state government has been able to maintain or increase state services without raising taxes significantly.

Furthermore, the high cost of energy in world markets in the 1970s, which is expected to continue for the remainder of the century, has been important to Texas growth. Long available oil and gas resources have been prime factors encouraging the location of many facilities (business/industries) in the state. In addition, coal and nuclear power potentials have not been fully explored. As a part of the sunbelt, the solar energy resources are an additional attraction which remains to be more fully researched. A favorable climate with lower heating costs has been attractive to industry; the climate has also been a primary factor in the development of recreational facilities within the state.

The growth of retail sales has been accompanied by a rapid growth in the newly incorporated businesses. In 1975, there were 16,726 businesses

which were newly incorporated in Texas. By late 1979, the number had risen to 41,130. This increase during the five-year period represented an average annual increase of 25.3 percent for the number of new incorporations in Texas. This growth was double the national average and one-third greater than the average for the sunbelt states.

Finally, the twelve deep-water ports, coupled with an equal number of smaller facilities, constitute a very important segment of the economic activity within the state. More cargo is handled each year in Texas than in any other state; these ports handle twice the tonnage of either New York or California. With foreign trade valued at \$49.6 billion, Texas ports handle almost 13 percent of the goods and services passing into and out of the United States.

In contrast to the positive aspects of the present economic situation in Texas, and projections for the future, it will be essential for water problems within the state to be recognized and resolved during the next decade. According to Dr. Victor Arnold, speaking at the Texas Lyceum 1980, "water is probably the most critical bottleneck for continued growth in Texas. It's a statewide issue that needs to be resolved very shortly, because of the long lead time associated with it. Whether it's flood control..., or it's the diminishing Ogallala Aquifer in West Texas, it could take fifteen years to produce a concrete solution to the problem." Dr. William Muse also noted at the Texas Lyceum 1980 that "forty-two counties in the high plains have six million acres under irrigation and draw upon underground reserves from the Ogallala Aquifer at the rate of 2.5 times that of natural replenishment. Projections are that, by the year 2000, there will only be a capacity to irrigate about 3 million acres. That would cut the labor force by about 25% in that area."

According to Forbes magazine (v. 124, No. 4, August 20, 1979, p.62), only about 9 percent of the U.S. water supply goes for physical and domestic uses; about 47 percent is used by industry. Therefore, ensuring adequate water supplies for industry, agriculture, and consumers will require considerable attention in the immediate and long-term future. Without a doubt, significant financial resources will have to be committed to the means of coping with this particular problem in order to facilitate the bright economic future presently forecast for the State of Texas.

In summary, there are numerous indices illustrating that growth rates within various sectors of the Texas economy have been impressive. However, the gains have not been uniform throughout the state. While Texas is no longer a rural frontier, there was an out-migration from many of the towns and counties across the state with the population growth concentrated in major metropolitan areas; about 40 percent of Texas residents were living in the Dallas and Houston SMSAs. In the 1970s, there was a de-concentration trend with facilities (business/industry) being located in small and medium-sized cities away from the central cities. However, some areas continue to experience out-migration. Despite the anticipated growth in the state, not all areas (economic regions) are expected to benefit as fully as others.

In addition, although population and economic growth in Texas is anticipated to continue for the next two decades, the extent of that growth and the extent of participation by regions, cities, counties, and local communities will depend upon many adjustments that are made to world trends and external developments. Therefore, it will behoove policy makers and leaders to observe and understand the underlying trends and developments if they wish to facilitate the state's anticipated growth and development. One of the first steps is to understand the basic data that is currently

available. The current pattern of resource allocation will influence future development. The slow dynamics of demographic change may be very important in determining the extent and the manner in which various local areas will participate in the future expansion.

An inventory of natural and human resources as well as institutional arrangements is important to planning for future economic growth. The extent to which the state can effectively mobilize education-for-work programs will also greatly impact the occupational supply/demand situation which will directly effect the well-being of the Texas economy. Inis being the case, it will be essential to plan for such training programs on the basis of the state and regional growth potentials outlined in this report.

ECONOMIC DEVELOPMENT OF TEXAS STATE PLANNING REGIONS

Economic development is the process of increasing economic activity by utilizing available resources to increase the production of goods and services. Major categories of resources include land, labor, capital, and technical knowledge. At the local level, economic development may involve both the use of local resources and the importation of resources from outside the area.

This section assesses economic development in the 24 Texas state planning regions. A discussion of the nature and measurement of economic activity, an economic profile of each of the 24 state planning regions, an assessment of national and state economic trends, and a discussion of the influence of these trends on the economy of each region has been included. Information is also provided on some of the major economic development entities and allies of each region.

The report can be used by vocational education professionals at the state and local levels as a guide to the "big picture" of economic activity at the state and regional levels and as a reference tool. In summary, the report explains what impacts the economy of each planning region in Texas, and how national and state trends and resource constraints are likely to affect the regional economies in the foreseeable future. The information on the existing economies and future economic trends in Texas can be used to establish vocational education policies that will enhance economic development throughout Texas.

The Nature and Measurement of Economic Activity

In modern developed economies, economic activity is typically measured in terms of the flows of money. One of the most familiar measures of economic activity is the gross national product (GNP), which is the total value of all goods and services produced in the nation. It would be handy if a similar measure of the total value of goods and services were available for state and local areas, but such a measure is not readily available.

Fortunately, a reasonable substitute measure of overall economic activity is available for states and local areas--personal income. At the national level, total personal income is consistently equal to between 77 and 82 percent of the gross national product. Table 1 shows the relationship between gross national product and total personal income for a 30-year period. The major statistical differences between gross national product and personal income are the subtraction of allowances for depreciation, indirect business taxes, and corporate profits, and the addition of transfer payments, interest payments, and dividend payments.

Data on the total amount and on the sources of personal income are available for counties and county-equivalent units. The data are compiled by the Regional Economic Measurement Division of the Bureau of Economic Analysis, a component of the U.S. Department of Commerce.

The three major sources of personal income are earnings, property income, and transfer payments. Earnings are by far the largest source of personal income, accounting for 75 to 80 percent of total personal income in recent years. Earnings include the wages and salaries of employees and the income of proprietors of unincorporated businesses. Property income is that received by individuals as a result of the

TABLE 1

RELATIONSHIP OF GROSS NATIONAL PRODUCT AND TOTAL PERSONAL INCOME,
UNITED STATES, 1950-1979
(Billions of dollars)

Year	Gross National Product (GNP)	Total Personal Income (TPI)	TPI Percent of GNP
1950	286.2	226.2	79
1951	330.2	253.2	77
1952	347.2	269.8	78
1953	366.1	285.5	78
1954	366.3	287.6	79
1955	399.3	308.3	77
1956	420.7	330.5	79
1957	442.8	348.5	79
1958	448.9	356.9	80
1959	486.5	380.0	78
1960	506.9	396.1	78
1961	523.3	411.3	79
1962	563.8	436.9	77
1963	594.7	459.1	77
1964	635.7	491.3	77
1965	688.1	532.0	77
1966	753.0	579.2	77
1967	796.3	620.0	78
1968	868.5	677.8	78
1969	935.5	738.2	79
1970	982.4	793.5	81
1971	1,063.4	852.0	80
1972	1,171.1	935.5	80
1973	1,306.6	1,045.3	80
1974	1,412.9	1,147.3	81
1975	1,528.8	1,248.6	82
1976	1,702.2	1,374.2	81
1977	1,899.5	1,522.8	80
1978	2,127.6	1,709.6	80
1979	2,368.8	1,930.7	82

Sources: Survey of Current Business, April 1969, August 1974, August 1979, and August 1980 issues; Local Area Personal Income, 1973-1978.

ownership of property; it includes corporate dividends, interests on bonds or savings accounts, and rental or royalty income. Transfer payments are those made to individuals other than compensation for services rendered. The major forms of transfer payments are retirement benefits, unemployment compensation, medical and disability benefits, and welfare payments.

The data on earned income are available for various economic sectors that generally conform to the Standard Industrial Classification, which is a system for categorizing all types of economic activity into one of ten major categories. The categories, which are referred to as "divisions" of the Standard Industrial Classification system are as follows:

1. Agriculture, forestry, and fishing
2. Mining
3. Construction
4. Manufacturing
5. Transportation, communication, and public utilities
6. Wholesale trade
7. Retail trade
8. Finance, insurance, and real estate
9. Services
10. Government

There are some conceptual differences between the Standard Industrial Classification and the source-of-earnings data produced by the Bureau of Economic Analysis. Perhaps the most significant difference concerns governmental activities. The Standard Industrial Classification follows a functional pattern regardless of type of ownership. As a result, the

Standard Industrial Classification places all educational activity in the services sector although most formal education is a governmental activity. Under the Standard Industrial Classification concept, only activities that are uniquely governmental, such as defense, police, and courts, are included in the government sector. The Bureau of Economic Analysis data places all governmental activity, including public education and such governmental enterprises as the U.S. Postal Service in the government sector.

Several additional points should be kept in mind regarding the economic sector classifications as they are presented in this report. The "agriculture, forestry, fisheries, and other" sector includes all of the indicated activities plus agricultural services (such as cropdusting) and a miscellaneous group of activities labeled "other" industries. The "other" industries are normally not significant in size. Agriculture includes both crop and livestock production. The mining sector includes oil and gas production, and in Texas oil and gas production accounts for about 95 percent of all mining sector earnings. The wholesale trade sector includes establishments which sell primarily to other businesses as well as merchant wholesalers who sell to retail stores. Thus, sales offices of major manufacturers, for example, are considered to be part of the wholesale trade sector as long as they are not involved in direct retail selling. The government sector has been divided into three sub-sectors: federal civilian, federal military, and state and local government.

A useful procedure for examining differences between the economies of particular geographic areas is a comparison of the percentages that each economic sector contributes to total personal income in each area. For example, if a particular economic sector, such as manufacturing, accounts for 20 percent of total personal income in one area and for 10 percent in

another area, that fact alone is indicative of the relative degree of industrialization of the two areas. The relationship between the two percentages--in this case 20 to 10 (or 2 to 1)--is referred to as the "location quotient." Location quotients are generally used to compare the economy of a relatively small area such as a county or group of counties with the economy of a larger area that includes the small area, such as the state or the nation. Experience indicates that location quotient variations of more than about .15 (which indicates equal importance of the sector in the two areas) are indicative of significant differences in the economies.

The analysis of the economies of the 24 Texas state planning regions in this report is based on the technique of comparing the percentage that each economic sector contributes to the regional economy with the corresponding percentage which that sector contributes to the statewide economy. Data for 1976, 1977, and 1978 have been used as the basis for the analysis. 1978 is the most recent year for which local area data are available. A three-year period has been used as the basis for comparison in order to minimize the distorting influences of events of a single year such as a crop failure or a single construction project.

National and State Economic Trends

In recent years, the economy of the State of Texas has been growing at a more rapid rate than the national economy. This fact, which has been well reported in the popular media and other sources, can also be demonstrated through the use of the personal income data. Table 2 shows the annual total amounts of personal income for the state and for the nation during the 30-year period from 1950 through 1979; the percentage of the national figure represented by the State of Texas is also noted. The table indicates that most of the relative growth of the state has occurred since the mid-1960s. As recently as 1966, the Texas percentage of the national total was equal to the percentage for 1950.

Notable changes have been taking place in the national and state economies during recent years. In several cases, these changes reflect continuations of trends set in motion much earlier. In other instances, events such as the 1973-1974 energy crisis have altered pre-existing trends.

Table 3 shows the percentages of total personal income in the United States contributed by each major income source for selected years since 1929, the earliest year for which such data are available. The choice of intermediate years was also largely dictated by data availability. Several of the more notable trends shown by the data in Table 3 are the relative decline of agricultural activity, the rising importance of government in general and especially of transfer payments, and the rise of the services sector. Notable trend reversals and fluctuations include the recent relative increase in the mining sector after many years of decline (a result of the energy crisis) and the fluctuation of the military sector in response to world events.

TABLE 2

RELATIONSHIP OF TOTAL PERSONAL INCOME,
UNITED STATES AND STATE OF TEXAS, 1950-1979
(Millions of dollars)

Year	United States	State of Texas	Texas Percent of U.S.
1950	226,214	10,486	4.64
1951	253,232	11,914	4.70
1952	269,769	12,837	4.76
1953	285,456	13,196	4.62
1954	287,307	13,504	4.70
1955	308,266	14,428	4.68
1956	330,479	15,472	4.68
1957	348,460	16,538	4.75
1958	356,939	16,858	4.72
1959	380,014	17,794	4.68
1960	396,086	18,227	4.60
1961	411,301	19,172	4.66
1962	436,894	20,162	4.61
1963	459,075	21,106	4.60
1964	491,341	22,671	4.61
1965	532,022	24,525	4.61
1966	579,158	26,853	4.64
1967	620,020	29,465	4.75
1968	677,786	32,762	4.83
1969	738,233	36,171	4.90
1970	793,485	39,410	4.97
1971	851,952	42,264	4.96
1972	935,463	47,094	5.03
1973	1,045,303	53,533	5.12
1974	1,147,257	60,575	5.28
1975	1,248,631	68,331	5.47
1976	1,374,189	77,796	5.66
1977	1,522,766	88,283	5.80
1978	1,709,615	100,804	5.90
1979	1,930,742	117,585	6.09

Sources: Survey of Current Business, April 1969, August 1974, August 1979, and August 1980 issues; Local Area Personal Income, 1973-1978.

TABLE 3

PERCENTAGE OF TOTAL PERSONAL INCOME, UNITED STATES, SELECTED YEARS 1929-1978

Source of income	1929	1940	1950	1962	1972	1976-1978
Agriculture, forestry, fisheries, and other	8.90	7.26	7.52	3.83	2.59	2.09
Mining	1.87	1.76	1.64	1.02	.80	1.17
Construction	4.29	3.14	4.92	4.80	5.14	4.56
Manufacturing	19.61	20.90	23.93	23.97	20.92	20.06
Transportation, communication, and public utilities	7.68	7.14	6.74	5.95	5.91	5.82
Wholesale and retail trade	14.45	16.27	15.63	14.11	13.28	12.80
Finance, insurance, and real estate	4.45	3.79	3.49	4.18	4.42	4.34
Services	9.97	10.19	9.23	11.14	12.34	12.80
Total private earnings	71.22	70.45	73.10	69.00	65.40	63.64
Federal civilian	1.24	4.45	2.98	3.44	3.49	3.17
Federal military	.30	.64	1.82	2.14	1.73	1.24
State and local	4.15	5.60	4.59	6.74	9.00	8.69
Total government earnings	5.70	10.69	9.39	12.32	14.22	13.10
Total earnings	76.92	81.13	82.49	81.32	79.62	76.74
Property income	21.50	15.72	12.11	13.48	12.91	13.71
Transfer payments	1.74	3.99	6.66	7.53	11.13	13.60
Total personal income*	100.00	100.00	100.00	100.00	100.00	100.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Most of the same changes have taken place in the Texas economy during the same time period as shown in Table 4. Several differences in trends are also noticeable. The decline in the importance of agriculture has been even more severe in Texas than across the nation. Manufacturing, which has declined in relative importance in the national economy during recent years, has increased steadily in its importance to the Texas economy. The fluctuations in the importance of the Texas mining sector have been more pronounced.

Table 5 shows the location quotients resulting from the comparison of the Texas percentages of total personal income with the national percentages for the same time periods. The location quotients highlight a number of differences in economic trends between the state and the nation.

The agriculture sector, which was once more than twice as large as a source of earnings in the Texas economy as in the national economy is now relatively less important in Texas than is the case nationwide. Mining has always been much more important in the Texas economy than in the national economy, although the magnitude of the contrast has changed over time. Construction has also maintained a higher level of importance in Texas; the level has increased in recent years as a result of the rapid growth of the state. Although manufacturing has steadily gained in importance in the Texas economy, the relative contribution of the manufacturing sector to the Texas economy is only 77 percent of the national average. The relative levels of importance of the transportation, trade, and services sectors have fluctuated less sharply in comparison with the national situation, while the financial sector has increased in relative importance.

TABLE 4
PERCENTAGE OF TOTAL PERSONAL INCOME, TEXAS, SELECTED YEARS 1929-1978

Source of income	1929	1940	1950	1962	1972	1975- 1978
Agriculture, forestry, fisheries, and other	19.78	14.88	11.94	6.22	3.65	1.79
Mining	3.37	5.40	5.56	4.40	2.57	4.05
Construction	4.54	3.73	5.87	4.84	5.82	6.41
Manufacturing	8.31	9.27	11.69	15.14	15.29	15.44
Transportation, communication, and public utilities	9.38	8.18	7.28	6.51	6.25	6.26
Wholesale and retail trade	16.59	17.68	16.78	15.39	15.13	14.87
Finance, insurance, and real estate	3.73	3.41	3.32	4.18	4.57	4.41
Services	9.49	9.70	8.88	10.20	12.05	11.92
Total private earnings	75.18	72.23	71.33	66.87	64.56	65.15
Federal civilian	1.18	4.80	2.85	3.57	3.74	3.01
Federal military	.64	1.07	4.10	4.34	3.14	1.92
State and local	4.07	5.20	4.35	6.54	8.00	7.78
Total government earnings	5.89	11.07	11.30	14.45	14.88	12.71
Total earnings	81.07	83.31	82.63	81.32	79.44	77.86
Property income	17.52	14.47	11.86	14.30	14.54	15.18
Transfer payments	1.55	2.94	6.63	6.62	9.72	10.93
Total personal income*	100.00	100.00	100.00	100.00	100.00	100.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 5

LOCATION QUOTIENTS (TEXAS/UNITED STATES), PERCENTAGES OF TOTAL PERSONAL INCOME,
SELECTED YEARS 1929-1978

Source of income	1929	1940	1950	1962	1972	1976- 1978
Agriculture, forestry, fisheries, and other	2.22	2.05	1.59	1.62	1.41	.86
Mining	1.80	3.07	3.39	4.31	3.21	3.46
Construction	1.06	1.19	1.19	1.01	1.13	1.41
Manufacturing	.42	.44	.49	.63	.73	.77
Transportation, communication, and public utilities	1.22	1.15	1.08	1.09	1.06	1.08
Wholesale and retail trade	1.15	1.09	1.07	1.09	1.14	1.16
Finance, insurance, and real estate	.84	.90	.95	1.00	1.03	1.02
Services	.95	.95	.96	.92	.98	.93
Total private earnings	1.06	1.03	.98	.97	.99	1.02
Federal civilian	.95	1.08	.96	1.04	1.07	.95
Federal military	2.13	1.67	2.25	2.03	1.82	1.55
State and local	.98	.93	.95	.97	.89	.90
Total government earnings	1.03	1.04	1.20	1.17	1.05	.97
Total earnings	1.05	1.03	1.00	1.00	1.00	1.01
Property income	.81	.92	.98	1.06	1.13	1.11
Transfer payments	.89	.74	1.00	.88	.87	.80
Total personal income*	1.00	1.00	1.00	1.00	1.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Within the governmental sector, federal military earnings have consistently been more significant in the Texas economy than nationwide, but the margin has declined steadily since World War II. State and local government has consistently been less important as a source of earnings in Texas than across the country. The relative importance of federal civilian earnings has fluctuated. Transfer payments have generally been less important as a source of income in Texas than nationwide, which reflects the relative youth of the state population and the relative economic health of the state. Property income has also increased in relative importance as a source of income in Texas when compared as a source of income nationwide.

Future Economic Trends in Texas

The preceding section has examined some of the major national and state economic trends of the past half century. During that time, the economy of the State of Texas has become more similar to the national economy, but notable differences continue to exist. Table 6 presents a comparison of the state and national economies in the recent past, which may be safely assumed to be fairly representative of the present time.

Any assessment of the future is necessarily a subjective process. The assessment presented here represents a judgment formulated after a review of other forecasts and consultation with other knowledgeable persons.

The projections for the future role of each of the various sectors in the Texas economy are presented in Table 7. The relative decline of the agriculture sector is expected to continue during the early 1980s, but should level out during the late 1980s and remain relatively stable through the end of the century. Forces contributing to the continuing relative decline of agriculture include the more rapid growth rates projected for other sectors of the economy and the resource constraint of water scarcity which will reduce or restrain the growth of agricultural production in many parts of Texas. The eventual stabilization of the agricultural sector will occur as a result of rising prices of agricultural products brought on by increased worldwide demand for food. A "food crisis" during the later years of the century is likely to bring about a dramatic increase in the relative value of agricultural products, similar to the rise in energy prices which followed the "energy crisis" of the 1970s.

TABLE 6
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 UNITED STATES AND STATE OF TEXAS, 1976-1978

Source of income	United States	State of Texas	Location quotient (Texas/U.S.)
Agriculture, forestry, fisheries, and other	2.09	1.79	.86
Mining	1.17	4.05	3.46
Construction	4.56	6.41	1.41
Manufacturing	20.05	15.44	.77
Transportation, communication, and public utilities	5.82	6.26	1.08
Wholesale trade	5.05	6.36	1.26
Retail trade	7.75	8.51	1.10
Finance, insurance, and real estate	4.34	4.41	1.02
Services	12.80	11.92	.93
Total private earnings	63.64	65.15	1.02
Federal civilian	3.17	3.01	.95
Federal military	1.24	1.92	1.55
State and local	8.69	7.78	.90
Total government earnings	13.10	12.71	.97
Total earnings	76.74	77.86	1.01
Property income	13.71	15.18	1.11
Transfer payments	13.60	10.93	.80
Total personal income*	100.00	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 7

PROJECTIONS OF PERCENTAGES OF TOTAL PERSONAL INCOME FOR
THE STATE OF TEXAS THROUGH THE YEAR 2000

Source of income	1976- 1978	1980	1990	2000
Agriculture, forestry, fisheries, and other	1.79	1.74	1.41	1.40
Mining	4.05	4.50	3.64	2.77
Construction	6.41	6.10	5.74	5.60
Manufacturing	15.44	15.61	15.89	16.17
Transportation, communication, and public utilities	6.26	6.22	6.11	5.99
Wholesale trade	6.36	6.36	6.24	6.12
Retail trade	8.51	8.52	8.36	8.19
Finance, insurance, and real estate	4.41	4.55	4.72	4.87
Services	11.92	12.33	13.25	14.18
Total private earnings	65.15	65.93	65.36	65.29
Federal civilian	3.01	2.94	2.72	2.50
Federal military	1.92	1.87	1.68	1.50
State and local	7.78	7.90	8.30	8.70
Total government earnings	12.71	12.71	12.70	12.70
Total earnings	77.86	78.64	78.06	77.99
Property income	15.18	15.03	14.51	14.00
Transfer payments	10.93	11.28	12.47	13.65
Total personal income*	100.00	100.00	100.00	100.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Industrial Economics Group, Center for Strategic Technology,
Texas A&M University System.

The relative importance of the mining sector in Texas will continue to increase through the early 1980s, but will decline through the remainder of the century, reaching a level similar to that which prevailed before the energy crisis. Of course, a major new resource discovery or improved recovery techniques could change the projected trend. The trend is based on the assumption that energy and other mineral resource prices will continue to increase but that Texas' share of national production will decline as other less-fully explored areas are developed. The story of Texas oil and gas production in recent years has been one of increased drilling activity but declining production.

The relative importance of the construction sector is closely related to the overall growth of the state. Texas will continue to grow at a more rapid rate than the nation, but the margin of the Texas growth rate over the national growth rate will decline. The construction sector will decline gradually in relative importance to a level equivalent to that which it occupied prior to the Texas boom which began in the mid-1960s.

The manufacturing sector will continue to grow in relative importance in Texas, even if the national role of manufacturing continues to diminish. Productive enterprises will be drawn to Texas because of the favorable business climate, the favorable natural climate, and the continued growth of the state as a market area.

The transportation, communication, and public utilities sector will continue to decline slightly in relative importance, following a long-standing trend. The historic reasons have included a shift of much transportation activity to private vehicles outside the transportation sector, a decreased relative demand for freight transportation

as the economy has moved from goods-producing to service-producing activities, and increased labor productivity in the communication and utilities industries as a result of technological change. The future scenario for Texas reflects a continuation of the status quo, adjusted for the more rapid growth of services and other economic activities.

The wholesale trade and retail trade sectors will maintain a position comparable to the existing situation. However, each sector will experience a slight relative decline as a result of displacement caused by more rapid growth in the services and manufacturing sectors.

The finance, insurance, and real estate sector will continue its modest relative growth. The sector will benefit from the continuing relative growth of Texas and the surrounding states. It is anticipated that Texas will become the financial center for the south central portion of the nation.

The services sector will continue to increase in relative importance and will ultimately represent a level of importance in Texas comparable to the national average. The services sector includes such diverse activities as data processing, medicine, accounting, law, repairs, private education, and amusements; most of its components are expected to continue their growth in economic importance.

The relative future importance of federal civilian and federal military earnings in Texas is difficult to predict. Texas has traditionally been the location of several of the nation's most important defense installations, and has had a variable level of federal civilian employment. Nationwide, the trend of rapid relative growth of the federal government has reversed. The relative decline in the importance of federal government activities in Texas has been particularly pronounced.

The projections are based on the assumption that political decisions will tend to position federal spending in other parts of the nation. The result will be a gradual decline in the importance of the federal government in Texas.

State and local government is expected to grow in relative importance in Texas; it will reach a level at the end of the century that is comparable with that which now prevails nationwide. The net effect of the federal, state, and local trends is that the overall economic importance of government in Texas will remain essentially stable at the current level.

The two sources of personal income other than earnings--property income and transfer payments--are projected to converge on their current approximate national levels of relative importance. Thus, property income in Texas is projected to experience a relative decline in importance as a source of income while transfer payments will increase to a level slightly higher than the current nationwide level.

The Texas State Planning Regions

The 24 Texas state planning regions are multi-county areas which are generally representative of the market areas or trade territories of the state. The regions were first designated by Governor John Connally in 1968. Between 1968 and 1973, seven counties were transferred from one region to another on the basis of gubernatorial review. No regional boundary changes have occurred since 1973 and no changes are anticipated in the foreseeable future although the regions are subject to periodic review.

Table 8 is a list of the 24 state planning regions including current population and income data. The boundaries of the regions are shown in Figure 1. A list of the component counties of each region is included as an Appendix.

The regions differ significantly in relative economic well being. The per capita income level in the most prosperous regions is more than double that of the least prosperous regions, as shown in Table 9. An even greater difference exists in the rate of unemployment among the various regions, as shown in Table 10.

Although the State of Texas has grown consistently in recent years, the growth has not been evenly spread across the state, nor have all of the regions grown consistently. Indeed, only in the 1970s have all 24 of the regions registered increases in population. Eight of the regions lost population during the 1950s, while the state population was growing at a rapid rate. Six of the regions lost population during the 1960s, including two of the same regions that had lost population during the 1950s. The average annual compound population growth rates for the regions for each decade are shown in Table 11.

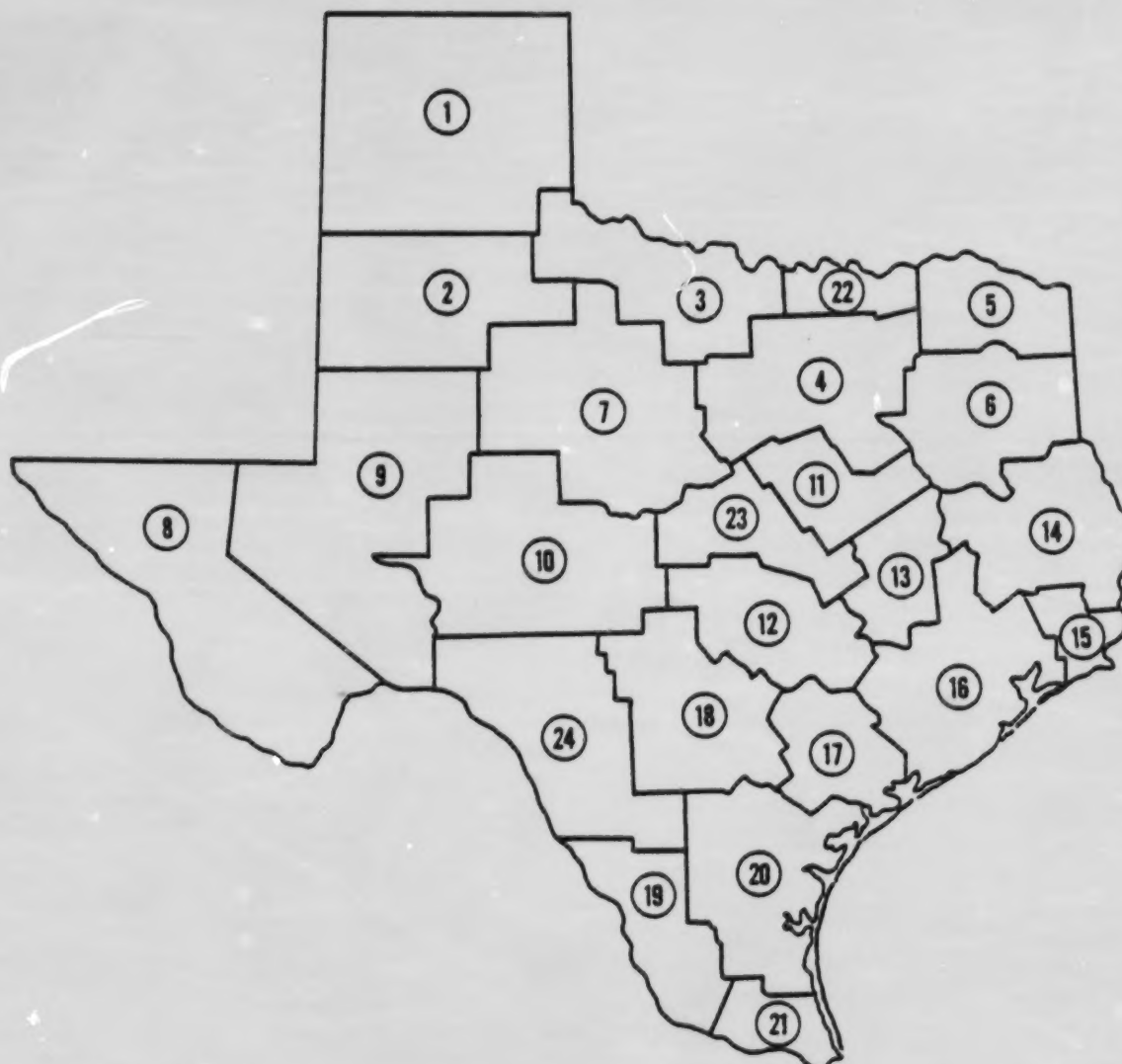
TABLE 8

POPULATION, TOTAL PERSONAL INCOME, AND PERCENTAGES OF STATE TOTAL,
TEXAS STATE PLANNING REGIONS, 1978

Region	Population		Personal income	
	Number	Percent of total	Amount (000)	Percent of total
Panhandle	346,547	2.66	2,767,895	2.75
South Plains	345,413	2.65	2,378,004	2.36
North Texas	214,000	1.64	1,703,066	1.69
North Central Texas	2,849,552	21.90	24,727,593	24.53
North East Texas	218,738	1.68	1,460,227	1.45
East Texas	502,290	3.86	3,641,613	3.61
West Central Texas	292,954	2.25	2,075,083	2.06
Upper Rio Grande	463,460	3.56	2,612,556	2.59
Permian Basin	322,241	2.48	2,615,953	2.60
Concho Valley	119,285	.92	911,765	.90
Heart of Texas	242,161	1.86	1,752,962	1.74
Capital	576,355	4.43	4,121,875	4.09
Brazos Valley	151,586	1.16	948,937	.94
Deep East Texas	248,930	1.91	1,544,461	1.53
South East Texas	364,334	2.80	2,933,647	2.91
Gulf Coast	2,945,641	22.63	27,057,658	26.84
Golden Crescent	150,008	1.15	1,064,517	1.06
Alamo	1,170,746	9.00	7,811,589	7.75
South Texas	118,463	.91	501,795	.50
Coastal Bend	440,592	3.39	2,959,848	2.94
Lower Rio Grande Valley	429,472	3.30	1,981,488	1.97
Texoma	132,142	1.02	945,605	.94
Central Texas	257,618	1.98	1,755,089	1.74
Middle Rio Grande	111,458	.86	530,464	.53
Total Texas	13,013,986	100.00	100,803,690	100.00

Source: Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

FIGURE 1
TEXAS STATE PLANNING REGIONS



- | | |
|------------------------|-----------------------------|
| 1. Panhandle | 13. Brazos Valley |
| 2. South Plains | 14. Deep East Texas |
| 3. North Texas | 15. South East Texas |
| 4. North Central Texas | 16. Gulf Coast |
| 5. North East Texas | 17. Golden Crescent |
| 6. East Texas | 18. Alamo |
| 7. West Central Texas | 19. South Texas |
| 8. Upper Rio Grande | 20. Coastal Bend |
| 9. Permian Basin | 21. Lower Rio Grande Valley |
| 10. Concho Valley | 22. Texoma |
| 11. Heart of Texas | 23. Central Texas |
| 12. Capital | 24. Middle Rio Grande |

TABLE 9

PER CAPITA INCOME AND PERCENT OF STATEWIDE AVERAGE,
TEXAS STATE PLANNING REGIONS, 1973 AND 1978

Region	1973		1978	
	Amount	% of state average	Amount	% of state average
Panhandle	5,064	112	7,987	103
South Plains	4,656	103	6,884	89
North Texas	4,470	99	7,958	103
North Central Texas	5,203	115	8,677	112
North East Texas	3,756	83	6,675	86
East Texas	3,971	88	7,250	94
West Central Texas	4,199	93	7,083	91
Upper Rio Grande	3,650	81	5,637	73
Permian Basin	4,453	98	8,118	105
Concho Valley	4,340	96	7,643	99
Heart of Texas	4,335	96	7,238	93
Capital	4,218	93	7,151	92
Brazos Valley	3,683	81	6,260	81
Deep East Texas	3,407	75	6,204	80
South East Texas	4,416	98	8,052	104
Gulf Coast	5,118	113	9,185	119
Golden Crescent	3,961	88	7,096	92
Alamo	4,231	94	6,672	86
South Texas	2,527	56	4,235	55
Coastal Bend	3,740	83	6,717	87
Lower Rio Grande Valley	2,673	59	4,613	60
Texoma	4,337	96	7,155	92
Central Texas	4,305	95	6,812	88
Middle Rio Grande	2,815	62	4,759	61
Texas State Average	4,525	100	7,746	100

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 10
UNEMPLOYMENT RATE, TEXAS STATE PLANNING REGIONS, 1975-1979

Region	1975	1976	1977	1978	1979
Panhandle	3.5	3.7	3.7	3.5	3.3
South Plains	4.0	3.9	3.9	3.7	3.6
North Texas	4.0	4.1	3.6	3.2	3.0
North Central Texas	6.0	5.4	4.7	4.1	3.5
North East Texas	8.3	7.9	6.4	6.2	5.7
East Texas	6.6	6.1	5.4	4.9	4.7
West Central Texas	3.9	3.9	3.9	3.4	2.9
Upper Rio Grande	8.5	10.9	11.0	9.0	7.7
Permian Basin	3.7	4.2	3.8	3.8	3.5
Concho Valley	3.5	4.0	3.5	3.3	2.9
Heart of Texas	6.4	5.0	4.7	4.6	3.7
Capital	4.2	4.4	4.2	3.3	2.9
Brazos Valley	4.6	4.1	3.7	3.2	2.8
Deep East Texas	6.1	5.4	5.1	4.7	4.5
South East Texas	7.3	7.2	7.0	6.7	5.9
Gulf Coast	4.1	4.6	4.5	4.1	3.4
Golden Crescent	4.7	4.6	4.4	4.3	3.8
Alamo	7.0	7.1	6.5	6.1	5.4
South Texas	12.6	16.8	15.9	16.1	14.7
Coastal Bend	5.9	6.3	6.3	5.3	4.7
Lower Rio Grande Valley	9.6	11.8	11.7	11.6	10.8
Texoma	9.4	8.5	6.5	5.5	4.5
Central Texas	5.3	5.7	5.4	4.7	4.3
Middle Rio Grande	9.5	13.9	13.5	11.8	12.1
Total Texas	5.6	5.7	5.4	4.8	4.2

Source: Texas Fact Book, 1980 and 1981 editions. Developed from data compiled by Texas Employment Commission.

TABLE 11
AVERAGE ANNUAL COMPOUND POPULATION GROWTH RATES,
TEXAS STATE PLANNING REGIONS, 1950-1978

Region	1950-1960	1960-1970	1970-1978
Panhandle	2.68	- .52	.58
South Plains	2.68	.06	.64
North Texas	.38	- .64	.16
North Central Texas	3.31	3.08	1.57
North East Texas	-1.29	.56	.89
East Texas	- .33	.54	1.72
West Central Texas	- .07	-1.00	.55
Upper Rio Grande	4.36	1.29	2.46
Permian Basin	5.27	- .56	.66
Concho Valley	- .16	.18	.96
Heart of Texas	- .09	- .48	.75
Capital	1.17	2.50	3.14
Brazos Valley	- .50	.70	1.93
Deep East Texas	- .61	1.10	1.74
South East Texas	2.62	.50	.57
Gulf Coast	3.72	3.10	3.02
Golden Crescent	1.16	.08	.63
Alamo	2.61	1.72	1.85
South Texas	1.35	.87	2.13
Coastal Bend	2.39	.38	.57
Lower Rio Grande Valley	1.40	- .42	2.97
Texoma	- .36	.80	.25
Central Texas	1.28	2.00	2.74
Middle Rio Grande	1.05	.33	2.02
Total Texas	2.19	1.57	1.84

Source: Calculated from data and estimates developed by the Bureau of the Census, U.S. Department of Commerce.

The following pages include individual economic profiles of each of the 24 state planning regions. Information is provided on the general characteristics of each region and on the structure of the regional economy. The economic profiles are focused on identifying significant differences between the regions which can be expected to affect their future economic development.

Panhandle

The Panhandle region includes 25 counties in the Texas panhandle surrounding Amarillo. About 347,000 people, 2.66 percent of the state population, live in the region, and 2.75 percent of total state personal income is generated there. About 46 percent of the people in the region live in the Amarillo metropolitan area which consists of Potter and Randall counties.

Manufacturing, services, and retail trade are the largest three sources of earnings in the Panhandle region, but all three of these sectors contribute relatively lower amounts to total income in the region than is true across the state. The economic sectors that make the greatest relative contribution to the Panhandle economy in comparison with the state are agriculture, mining, and transportation. Agriculture is particularly important to the economy of the region. The agricultural sector contributes almost four and a half times as much to the regional economy as to the economy of the state and is the fourth largest source of earnings in the region. The percentages of total personal income derived from each source of income for the Panhandle region are shown in Table 12.

TABLE 12
PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
PANHANDLE REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	7.98	4.46
Mining	6.11	1.51
Construction	5.49	.86
Manufacturing	12.36	.80
Transportation, communication, and public utilities	7.54	1.20
Wholesale trade	6.02	.95
Retail trade	8.25	.97
Finance, insurance, and real estate	3.00	.68
Services	9.12	.77
Total private earnings	65.88	1.01
Federal civilian	1.77	.59
Federal military	.14	.15
State and local	6.84	.88
Total government earnings	8.75	.69
Total earnings	74.63	.96
Property income	19.85	1.31
Transfer payments	9.61	.88
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

South Plains

The South Plains region consists of 15 counties in the vicinity of Lubbock. Lubbock County, which is the Lubbock metropolitan area, includes 58 percent of the total population of 345,000 in the region. The region accounts for about 2.65 percent of the state's population and 2.36 percent of the state's personal income.

The services, retail trade, and state and local government sectors are the largest sources of earnings in the region, followed closely by manufacturing and agriculture. The sectors that make the largest relative contribution to the regional economy are agriculture, retail trade, and state and local government. The contribution of the agricultural sector to the regional economy is 4.8 times the state average. Details of the South Plains regional economy are shown in Table 13.

TABLE 13
PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
SOUTH PLAINS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	8.59	4.80
Mining	3.57	.88
Construction	4.24	.66
Manufacturing	8.74	.57
Transportation, communication, and public utilities	5.49	.88
Wholesale trade	6.34	1.00
Retail trade	9.95	1.17
Finance, insurance, and real estate	3.33	.76
Services	10.48	.88
Total private earnings	60.73	.93
Federal civilian	2.23	.74
Federal military	1.44	.75
State and local	9.04	1.16
Total government earnings	12.72	1.00
Total earnings	73.45	.94
Property income	19.35	1.27
Transfer payments	10.49	.96
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

North Texas

The North Texas region includes twelve counties along and near the Oklahoma border in the vicinity of Wichita Falls. The Wichita Falls metropolitan area, which includes Wichita and Clay counties, accounts for about 60 percent of the 214,000 people in the region. The region includes about 1.64 percent of the Texas population and 1.69 percent of the economic activity in the state as measured by total personal income.

The largest sources of earnings in the North Texas region are the manufacturing, mining, and state and local government sectors. The sources of earnings that make the largest relative contributions to the regional economy are the federal military payroll, agriculture, and mining, each of which accounts for more than twice the state average percentage contribution to income. The major source of federal military earnings in the region is Sheppard Air Force Base in Wichita Falls. Table 14 presents information on the North Texas regional economy.

TABLE 14
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 NORTH TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	3.91	2.18
Mining	8.51	2.10
Construction	3.74	.58
Manufacturing	9.86	.64
Transportation, communication, and public utilities	3.93	.63
Wholesale trade	3.37	.53
Retail trade	7.55	1.13
Finance, insurance, and real estate	2.65	.60
Services	7.73	.65
Total private earnings	51.24	.79
Federal civilian	3.44	1.14
Federal military	6.52	3.40
State and local	7.81	1.00
Total government earnings	17.77	1.40
Total earnings	69.02	.89
Property income	20.28	1.34
Transfer payments	13.73	1.26
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

North Central Texas

The North Central Texas region is one of the two largest Texas regions in population and income. It consists of 16 counties and includes the 11-county Dallas-Fort Worth metroplex. The total population of the region is about 2,850,000. About 95 percent of the residents of the region live in the Dallas-Fort Worth metropolitan area. The region accounts for 21.90 percent of the state population and the residents of the region receive 24.53 percent of all personal income in the state.

The largest sources of earnings in the North Central Texas region are manufacturing, services, and retail trade, followed by wholesale trade and transportation. The economy of the region is well diversified with no exceptional dominance by any particular economic sector. The sectors that make the largest relative contributions to total earnings in the region are finance, wholesale trade, and manufacturing. Table 15 shows the percentages of total personal income derived from each economic sector.

TABLE 15
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 NORTH CENTRAL TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	.51	.28
Mining	1.93	.48
Construction	4.67	.73
Manufacturing	19.25	1.25
Transportation, communication, and public utilities	7.21	1.15
Wholesale trade	8.88	1.40
Retail trade	9.31	1.09
Finance, insurance, and real estate	6.31	1.43
Services	13.16	1.10
Total private earnings	71.24	1.09
Federal civilian	2.45	.81
Federal military	.45	.23
State and local	6.62	.85
Total government earnings	9.52	.75
Total earnings	80.76	1.04
Property income	14.36	.95
Transfer payments	9.30	.85
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

North East Texas

The North East Texas region includes nine counties around Texarkana. About 34 percent of the 219,000 people in the region live in Bowie County, the Texas portion of the Texarkana metropolitan area. The region represents about 1.68 percent of the state population and 1.45 percent of state total personal income.

Manufacturing is the largest source of earnings in the region by a wide margin. The other largest sources of earnings are the services sector and the federal civilian payroll. In relative terms, the sectors that make the most notable contributions to the economy of the region are federal civilian earnings, manufacturing, and agriculture. The Red River Army Depot in Bowie County is the major federal installation in the region. Details of the regional economy are presented in Table 16.

TABLE 16

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
NORTH EAST TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	2.46	1.37
Mining	1.30	.32
Construction	5.56	.87
Manufacturing	21.53	1.39
Transportation, communication, and public utilities	6.03	.96
Wholesale trade	3.66	.58
Retail trade	7.38	.87
Finance, insurance, and real estate	2.17	.49
Services	8.69	.73
Total private earnings	58.77	.90
Federal civilian	8.46	2.81
Federal military	.15	.08
State and local	6.31	.81
Total government earnings	14.92	1.17
Total earnings	73.69	.95
Property income	17.63	1.16
Transfer payments	17.37	1.59
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

East Texas

The East Texas region consists of 14 counties surrounding Longview and Tyler. The Longview-Marshall metropolitan area--Gregg and Harrison counties--contains about 27 percent of the population of the region, while Smith County which is the Tyler metropolitan area, contains about 23 percent. The total population of the region is in excess of 502,000. The residents of the region constitute 3.86 percent of the state population and receive 3.61 percent of all income in the state.

Manufacturing is the largest source of income in the East Texas region, with the services and retail trade sectors in second and third places respectively. In comparison with the state economy, the sectors that make the most notable contributions to the economy of the region are agriculture, mining, and manufacturing. Table 17 shows the sources of personal income in the East Texas region.

TABLE 17

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
EAST TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	2.89	1.61
Mining	5.16	1.27
Construction	4.97	.78
Manufacturing	18.15	1.18
Transportation, communication, and public utilities	5.28	.84
Wholesale trade	3.31	.52
Retail trade	7.73	.91
Finance, insurance, and real estate	2.41	.55
Services	9.35	.78
Total private earnings	59.23	.91
Federal civilian	.90	.30
Federal military	.13	.07
State and local	6.74	.87
Total government earnings	7.76	.61
Total earnings	66.99	.86
Property income	18.75	1.24
Transfer payments	14.35	1.31
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

West Central Texas

The West Central Texas region is made up of 19 counties surrounding Abilene. About 45 percent of the 293,000 people in the region live in the three-county (Callahan, Jones and Taylor) Abilene metropolitan area. The residents of the region make up 2.25 percent of the state population and receive 2.06 percent of the state total personal income.

The services sector is the largest source of earnings in the West Central Texas region, followed by manufacturing and mining. Several private colleges and universities including three in Abilene and one in Brownwood increase the earnings derived from the services sector, but the relative contribution of the sector is only 79 percent of the statewide average. In relative terms, the agriculture, mining, and federal military sectors are the most notable sources of earnings in the region with agriculture and mining contributing more than double the statewide average. Dyess Air Force Base in Abilene is the major source of federal military earnings in the region. Information on the sources of income in the West Central Texas region is presented in Table 18.

TABLE 18

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
WEST CENTRAL TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	4.24	2.37
Mining	8.48	2.09
Construction	3.60	.56
Manufacturing	8.57	.56
Transportation, communication, and public utilities	5.43	.87
Wholesale trade	4.06	.64
Retail trade	7.59	.89
Finance, insurance, and real estate	2.86	.65
Services	9.45	.79
Total private earnings	54.28	.83
Federal civilian	1.88	.62
Federal military	3.37	1.76
State and local	7.67	.99
Total government earnings	12.92	1.02
Total earnings	67.20	.86
Property income	20.38	1.34
Transfer payments	15.30	1.40
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Upper Rio Grande

The Upper Rio Grande region consists of six counties in far West Texas. All of the counties are large in area, but five of the six are rather sparsely populated. The total population of the region is over 463,000 with about 96 percent of the people residing in El Paso County which is the El Paso metropolitan area. The region accounts for 3.56 percent of the state population, but for only 2.59 percent of total state personal income.

The manufacturing, services, and state and local government sectors are the largest sources of earnings in the region, but of the three, only state and local government makes a larger contribution than the statewide norm. Federal military earnings have the greatest relative importance in the region, with a percentage contribution to total income that is more than four times the state average. Fort Bliss in El Paso is the major military installation in the region. The other sources of earnings that make the most notable relative contributions to the regional economy are federal civilian earnings and the transportation, communication, and public utilities sector. Income information for the Upper Rio Grande region is presented in Table 19.

TABLE 19

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
UPPER RIO GRANDE REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	.82	.46
Mining	.60	.15
Construction	4.48	.70
Manufacturing	12.77	.83
Transportation, communication, and public utilities	8.23	1.31
Wholesale trade	4.91	.77
Retail trade	9.70	1.14
Finance, insurance, and real estate	3.63	.82
Services	11.28	.95
Total private earnings	56.41	.87
Federal civilian	5.89	1.96
Federal military	8.15	4.24
State and local	10.03	1.29
Total government earnings	24.07	1.89
Total earnings	80.48	1.03
Property income	11.70	.77
Transfer payments	15.46	1.41
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Permian Basin

The Permian Basin region consists of 17 counties and includes two metropolitan areas, Midland and Odessa. Midland County (the Midland metropolitan area) has about 23 percent of the regional population, while Ector County (Odessa) has about 33 percent. The 322,000 people in the region represent 2.48 percent of the state population and receive 2.60 percent of all income in the state.

Mining is the dominant economic activity in the Permian Basin region, with mining earnings contributing more than 22 percent of all income in the region. The mining activity in the region is almost entirely oil and gas production. The services and manufacturing sectors are the next most important sources of earnings, but the two sectors together provide less income than mining. The contribution of the mining sector to the regional economy is 5.47 times the state average. The only other source of earnings with a contribution to earnings larger than 1.15 times the state average is agriculture. Table 20 presents details of the Permian Basin economy.

TABLE 20
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 PERMIAN BASIN REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	2.10	1.17
Mining	22.16	5.47
Construction	5.50	.86
Manufacturing	8.49	.55
Transportation, communication, and public utilities	6.37	1.02
Wholesale trade	5.66	.89
Retail trade	7.93	.93
Finance, insurance, and real estate	2.92	.66
Services	9.41	.79
Total private earnings	70.54	1.08
Federal civilian	1.41	.47
Federal military	.49	.26
State and local	7.03	.90
Total government earnings	8.93	.70
Total earnings	79.47	1.02
Property income	16.52	1.09
Transfer payments	7.90	.72
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Concho Valley

The Concho Valley region consists of thirteen counties surrounding San Angelo. About 65 percent of the region's more than 119,000 residents live in Tom Green County, which is the San Angelo metropolitan area. The region is the third smallest of the 24 regions with .92 percent of the state population. Residents of the Concho Valley region earn about .90 percent of total Texas personal income.

The services, manufacturing, and retail trade sectors are the largest sources of earnings in the Concho Valley region, but all three contribute lower percentages to total regional income than at the state level. The sectors that stand out in comparison with the overall state economy are agriculture, mining, and federal military earnings. The Concho Valley agricultural sector provides 3.49 times the statewide average contribution of agriculture to the economy. Income data for the Concho Valley region are shown in Table 21.

TABLE 21
PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
CONCHO VALLEY REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	6.24	3.49
Mining	6.73	1.66
Construction	4.25	.66
Manufacturing	8.81	.57
Transportation, communication, and public utilities	6.68	1.07
Wholesale trade	2.79	.44
Retail trade	8.32	.98
Finance, insurance, and real estate	2.50	.57
Services	9.64	.81
Total private earnings	55.96	.86
Federal civilian	1.87	.62
Federal military	2.70	1.41
State and local	7.63	.98
Total government earnings	12.20	.96
Total earnings	68.16	.88
Property income	21.89	1.44
Transfer payments	13.16	1.20
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Heart of Texas

The Heart of Texas region is a six-county area in the vicinity of Waco. About 66 percent of the 242,000 people in the region live in McLennan County, which is the Waco metropolitan area. The Heart of Texas region accounts for 1.86 percent of the state population and for 1.74 percent of total personal income in the state.

The largest sources of earnings in the Heart of Texas region are manufacturing, services, and state and local government. The earnings sources that make the most significant contributions to the regional economy in comparison with the state economy are agriculture and federal civilian earnings. Table 22 shows the percentages of total personal income derived from each sector in the Heart of Texas region.

TABLE 22
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 HEART OF TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	2.75	1.54
Mining	.84	.21
Construction	3.72	.58
Manufacturing	13.84	.90
Transportation, communication, and public utilities	5.69	.91
Wholesale trade	3.75	.59
Retail trade	7.86	.92
Finance, insurance, and real estate	3.56	.81
Services	11.07	.93
Total private earnings	53.08	.81
Federal civilian	3.62	1.20
Federal military	.17	.09
State and local	8.18	1.05
Total government	11.98	.94
Total earnings	65.06	.84
Property income	19.66	1.30
Transfer payments	16.39	1.50
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Capital

The Capital region is a ten-county area with the three-county Austin metropolitan area at its center. About 83 percent of the 576,000 residents of the region live in the Austin metropolitan area--Hays, Travis, and Williamson counties. The Capital region is the fourth most populous of the 24 planning regions with about 4.43 percent of the state population. Capital region residents receive 4.09 percent of all income in the state.

State and local government is the largest source of earnings in the Capital region, followed by the services and manufacturing sectors. The portion of income provided by state and local government in the Capital region is 2.14 times the state average, making state and local government the most important source of income in the region in relative and absolute terms. The earnings of federal civilian employees also contribute a notable portion of regional income in comparison with the statewide average. Details of Capital region income sources are shown in Table 23.

TABLE 23
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 CAPITAL REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	1.58	.88
Mining	.75	.19
Construction	5.20	.81
Manufacturing	9.41	.61
Transportation, communication, and public utilities	3.30	.53
Wholesale trade	3.08	.48
Retail trade	8.55	1.00
Finance, insurance, and real estate	4.38	.99
Services	13.59	1.14
Total private earnings	49.84	.77
Federal civilian	3.64	1.21
Federal military	1.84	.96
State and local	16.65	2.14
Total government earnings	22.12	1.74
Total earnings	71.96	.92
Property income	18.38	1.21
Transfer payments	12.95	1.18
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Brazos Valley

The Brazos Valley region includes seven counties. The economic hub of the region is Brazos County, which is the Bryan-College Station metropolitan area. Brazos County has just over 50 percent of the total population of the region, which is about 152,000. The region accounts for 1.16 percent of the state population and for .94 percent of state total personal income.

State and local government is the dominant economic activity in the Brazos Valley region, providing nearly 20 percent of all income in the region. The other major earnings sources in the region are the services and manufacturing sectors. In relative terms, state and local government is the only source of earnings that makes a notably large contribution to regional income. The contribution of state and local government to Brazos Valley regional income is 2.53 times the state average, an even higher ratio than exists in the Capital region. Table 24 presents data on Brazos Valley region income sources.

TABLE 24
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 BRAZOS VALLEY REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	2.00	1.12
Mining	.69	.17
Construction	4.11	.64
Manufacturing	8.60	.56
Transportation, communication, and public utilities	3.70	.59
Wholesale trade	2.91	.46
Retail trade	7.92	.93
Finance, insurance, and real estate	2.71	.61
Services	8.77	.74
Total private earnings	41.41	.64
Federal civilian	1.88	.62
Federal military	.30	.16
State and local	19.71	2.53
Total government earnings	21.89	1.72
Total earnings	63.30	.81
Property income	22.42	1.48
Transfer payments	16.03	1.47
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Deep East Texas

The Deep East Texas region includes 12 counties in the vicinity of Lufkin and Nacogdoches, the two largest communities in the region. The Deep East Texas region is one of the three state planning regions that does not contain a metropolitan area. The total population of the region is about 249,000. Angelina County (Lufkin) has about 23 percent of the regional population, while Nacogdoches County has about 17 percent. The Deep East Texas region contains 1.91 percent of the state population and its residents receive 1.53 percent of state total personal income.

Manufacturing is the largest source of earnings in the Deep East Texas region by a wide margin, providing almost 21 percent of total income in the region. The next largest sources of earnings in the region are state and local government and retail trade. In comparison with the state, agriculture and manufacturing are the two economic activities that make the most noteworthy contribution to the economy of the region. Information on the Deep East Texas regional economy is presented in Table 25.

TABLE 25

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
DEEP EAST TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	3.37	1.88
Mining	.96	.24
Construction	3.78	.59
Manufacturing	20.82	1.35
Transportation, communication, and public utilities	3.90	.62
Wholesale trade	2.77	.44
Retail trade	7.05	.83
Finance, insurance, and real estate	2.28	.52
Services	6.86	.58
Total private earnings	51.79	.79
Federal civilian	1.30	.43
Federal military	.15	.08
State and local	8.80	1.13
Total government earnings	10.25	.81
Total earnings	62.04	.80
Property income	17.56	1.16
Transfer payments	17.02	1.12
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

South East Texas

The South East Texas region consists of the same three counties--Hardin, Jefferson, and Orange--that make up the Beaumont-Port Arthur-Orange metropolitan area. Most of the total population of about 364,000 is in Jefferson County, which includes Beaumont and Port Arthur and has 67 percent of the people. The South East Texas region accounts for 2.80 percent of the state population and 2.91 percent of state total personal income.

The economy of the South East Texas region is dominated by manufacturing. Well over 32 percent of all personal income in the region is attributable to manufacturing sector earnings. The next largest source of earnings in the region is the construction industry, which provides more than 11 percent of all regional income. The services sector is the third largest earnings source. The dominance of the manufacturing sector in the region is further evidenced by comparison with the statewide role of manufacturing. The sector contributes 2.1 times as much to the regional economy as to that of the state. No other Texas region is so heavily industrialized. The construction and transportation, communication, and public utilities sectors also make notable contributions to the regional economy in comparison with the state. Table 26 shows the income source structure of the region.

TABLE 26
PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
SOUTH EAST TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	.35	.20
Mining	1.18	.29
Construction	11.28	1.76
Manufacturing	32.43	2.10
Transportation, communication, and public utilities	7.31	1.17
Wholesale trade	3.71	.58
Retail trade	7.43	.87
Finance, insurance, and real estate	2.39	.54
Services	9.33	.78
Total private earnings	75.42	1.16
Federal civilian	.85	.28
Federal military	.23	.12
State and local	6.99	.90
Total government earnings	8.08	.64
Total earnings	83.50	1.07
Property income	11.79	.78
Transfer payments	10.33	.95
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Gulf Coast

The Gulf Coast region is the most populous of the 24 state planning regions with about 2,946,000 residents. The region contains 13 counties and two metropolitan areas. Six counties make up the Houston metropolitan area, which has about 88 percent of the regional population. Galveston County, which is the Galveston-Texas City metropolitan area, has about 7 percent of the regional population. The region represents 22.63 percent of the state population and an even larger 26.84 percent of state total personal income.

Manufacturing is the largest source of earnings in the Gulf Coast region, followed by the services and construction sectors. Comparison of the income sources of the Gulf Coast region with the state sources indicates that the construction, mining, wholesale trade, services, and transportation sectors all contribute more than 1.15 times the state average to the regional economy. Table 27 presents the details of Gulf Coast regional income derivation.

TABLE 27

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
GULF COAST REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	.62	.35
Mining	5.77	1.42
Construction	10.42	1.63
Manufacturing	17.40	1.13
Transportation, communication, and public utilities	7.24	1.16
Wholesale trade	8.19	1.29
Retail trade	8.07	.95
Finance, insurance, and real estate	4.93	1.12
Services	14.25	1.20
Total private earnings	76.88	1.18
Federal civilian	1.72	.57
Federal military	.15	.08
State and local	6.40	.82
Total government earnings	8.27	.65
Total earnings	85.14	1.09
Property income	12.15	.80
Transfer payments	7.07	.65
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Golden Crescent

The Golden Crescent region consists of seven counties surrounding Victoria, which is the largest community in the region. The Golden Crescent region is another of the three state planning regions that does not contain a metropolitan area. The total population of the region is about 150,000, with about 42 percent of the people living in Victoria County. The region accounts for 1.15 percent of the state population and for 1.06 percent of state total personal income.

Manufacturing is the largest source of earnings in the Golden Crescent region, and contributes more than twice as much to total personal income as any other earnings source. The services sector is the next largest, followed by retail trade. Comparison of the regional economy with that of the state indicates that the agriculture and mining sectors make notably large contributions to the regional economy. Table 28 shows the sources of personal income in the Golden Crescent region.

TABLE 28
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 GOLDEN CRESCENT REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	5.18	2.89
Mining	6.20	1.53
Construction	6.89	1.07
Manufacturing	17.03	1.10
Transportation, communication, and public utilities	4.21	.67
Wholesale trade	3.09	.49
Retail trade	7.57	.89
Finance, insurance, and real estate	2.33	.53
Services	8.46	.71
Total private earnings	60.96	.94
Federal civilian	1.01	.34
Federal military	.16	.08
State and local	6.72	.86
Total government earnings	7.89	.62
Total earnings	68.85	.88
Property income	19.70	1.30
Transfer payments	12.30	1.13
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Alamo

The Alamo region is the third most populous of the state planning regions with about 1,171,000 residents. The region consists of 12 counties, three of which comprise the San Antonio metropolitan area. The three San Antonio metro area counties (Bexar, Comal, and Guadalupe) account for about 89 percent of the population of the region. The Alamo region has 9.00 percent of the state population and its residents receive 7.75 percent of state total personal income.

The services sector is the largest source of earnings in the Alamo region, followed by federal civilian earnings and retail trade. Of the three leading earnings sources, only the federal civilian payroll has a greater importance in the region than is true statewide. Comparison of the Alamo region with the state indicates that the sources of earnings that are most notable in the region are the federal military payroll and the federal civilian payroll, which contribute 3.31 and 2.99 times the state average to the regional economy respectively. There are several major defense installations in the region including Fort Sam Houston, and Kelly, Lackland, and Randolph Air Force bases. Table 29 presents information on the Alamo region economy.

TABLE 29
PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
ALAMO REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	1.08	.60
Mining	1.14	.28
Construction	4.25	.66
Manufacturing	7.49	.49
Transportation, communication, and public utilities	4.07	.65
Wholesale trade	4.43	.70
Retail trade	8.46	.99
Finance, insurance, and real estate	4.49	1.02
Services	11.80	.99
Total private earnings	47.21	.72
Federal civilian	9.00	2.99
Federal military	6.36	3.31
State and local	8.62	1.11
Total government earnings	23.98	1.89
Total earnings	71.20	.91
Property income	16.18	1.07
Transfer payments	16.31	1.49
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

South Texas

The South Texas region includes four counties, the largest and most populous of which is Webb County, the Laredo metropolitan area. The region has the second lowest population of the 24 regions with over 118,000 residents, 72 percent of whom live in Webb County. The region suffers from low income levels. It contains .91 percent of the state population, but the residents receive only .50 percent of total state personal income.

Retail trade is the largest source of earnings in the South Texas region, followed by state and local government and the services sector. Several sources of earnings make higher-than-average contributions to the economy of the region, including agriculture, state and local government, mining, retail trade, transportation, and federal civilian earnings. The relatively small size of the manufacturing sector in the South Texas region is partly responsible for the relatively greater importance of some of the sectors. Statewide, manufacturing is the largest source of earnings. In the South Texas region, manufacturing is one of the smaller economic sectors. Table 30 presents data on the sources of income in the South Texas region.

TABLE 30

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
SOUTH TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	4.64	2.59
Mining	6.72	1.66
Construction	3.07	.48
Manufacturing	3.74	.24
Transportation, communication, and public utilities	8.35	1.33
Wholesale trade	4.27	.67
Retail trade	14.00	1.65
Finance, insurance, and real estate	2.83	.64
Services	9.76	.82
Total private earnings	57.39	.88
Federal civilian	3.56	1.18
Federal military	.22	.11
State and local	13.73	1.76
Total government earnings	17.51	1.38
Total earnings	74.90	.96
Property income	11.21	.74
Transfer payments	19.51	1.78
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Coastal Bend

The Coastal Bend region includes the twelve counties surrounding Corpus Christi. Two of the counties, Nueces and San Patricio, make up the Corpus Christi metropolitan area, which contains about 69 percent of the population of the region. About 441,000 people, some 3.39 percent of the state population, live in the Coastal Bend region. Residents of the region receive about 2.94 percent of total state personal income.

The largest sources of earnings in the Coastal Bend region are the services sector, manufacturing, and state and local government. These three sectors are followed closely in size by retail trade and mining. Of the three leading sectors, only state and local government makes a higher-than-average contribution to the regional economy. The sectors that make the most notable relative contributions to the regional economy in comparison with the state are mining, federal civilian earnings, federal military earnings, agriculture, and state and local government earnings. The significance of the federal government is largely attributable to defense installations in Corpus Christi, Kingsville, and Beeville. Table 31 presents information on the Coastal Bend regional economy.

TABLE 31

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
COASTAL BEND REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	2.64	1.47
Mining	8.23	2.03
Construction	7.33	1.14
Manufacturing	9.15	.59
Transportation, communication, and public utilities	5.21	.83
Wholesale trade	4.19	.66
Retail trade	8.82	1.04
Finance, insurance, and real estate	2.95	.67
Services	10.21	.86
Total private earnings	58.72	.90
Federal civilian	4.95	1.64
Federal military	2.95	1.54
State and local	8.95	1.15
Total government earnings	16.85	1.33
Total earnings	75.57	.97
Property income	15.43	1.02
Transfer payments	12.74	1.17
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Lower Rio Grande Valley

The Lower Rio Grande Valley region includes only three counties, but two of them are designated as metropolitan areas. Cameron County is the Brownsville-Harlingen-San Benito metropolitan area and Hidalgo County is the McAllen-Pharr-Edinburg metropolitan area. Of the total population of over 429,000 in the region, 41 percent live in Cameron County and 55 percent live in Hidalgo County. The region contains 3.30 percent of the state population, but relatively low income levels hold its share of state income to 1.97 percent.

State and local government, retail trade, and the services sector are the largest sources of earnings in the Lower Rio Grande Valley region. State and local government and retail trade also make relatively large contributions to the economy of the region in comparison with their statewide roles. The largest relative contribution to the Lower Rio Grande Valley regional economy is made by the agriculture sector (which includes commercial fishing). Information on the Lower Rio Grande Valley regional economy is presented in Table 32.

TABLE 32

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
LOWER RIO GRANDE VALLEY REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	5.94	3.32
Mining	1.27	.31
Construction	4.26	.66
Manufacturing	9.28	.60
Transportation, communication, and public utilities	4.48	.72
Wholesale trade	5.64	.89
Retail trade	10.93	1.28
Finance, insurance, and real estate	3.10	.70
Services	9.50	.80
Total private earnings	54.41	.84
Federal civilian	2.64	.88
Federal military	.26	.14
State and local	12.82	1.65
Total government earnings	15.72	1.24
Total earnings	70.13	.90
Property income	18.26	1.20
Transfer payments	16.73	1.53
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Texoma

The Texoma region includes only three counties, one of which is Grayson which is the Sherman-Denison metropolitan area. The Sherman-Denison metro area contains about 64 percent of the total regional population of about 132,000. The Texoma region accounts for 1.02 percent of the state population and .94 percent of total state personal income.

Manufacturing dominates the economy of the Texoma region. The sector provides 23.75 percent of total regional income, which is 1.54 times the statewide average percentage contribution of the manufacturing sector. The next largest sources of earnings in the region are the services sector and retail trade. Of the various sources of earnings, only manufacturing provides a larger portion of total income than at the state level, although the transportation sector comes close. Table 33 shows the absolute and relative importance of the various sources of income in the Texoma region.

TABLE 33

PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
TEXOMA REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	1.11	.62
Mining	2.51	.62
Construction	3.66	.57
Manufacturing	23.75	1.54
Transportation, communication, and public utilities	6.01	.96
Wholesale trade	2.65	.42
Retail trade	7.49	.88
Finance, insurance, and real estate	2.59	.59
Services	8.53	.72
Total private earnings	58.31	.90
Federal civilian	1.51	.50
Federal military	.13	.07
State and local	6.72	.86
Total government earnings	8.37	.66
Total earnings	66.67	.86
Property income	18.95	1.25
Transfer payments	16.37	1.50
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Central Texas

The Central Texas region consists of seven counties including the two-county Killeen-Temple metropolitan area, which accounts for 81 percent of the regional population. The total population of the Central Texas region is approaching 258,000. The region has 1.98 percent of the total Texas population and its residents receive 1.74 percent of total state income.

The federal government is the dominant force in the economy of the Central Texas region. The federal military payroll provides over 32 percent of all income in the region and federal civilian earnings account for another 7.69 percent of total income, making the federal portion of the total almost 40 percent. Fort Hood, near Killeen, is one of the largest military installations in the nation. The military contribution to the economy of the Central Texas region is more than 16 times the statewide average level, while the federal civilian contribution is 2.55 times the state average. Manufacturing is a larger source of earnings than the federal civilian sector in absolute terms, but has a low level of relative significance. The only other economic sector that makes a contribution to the regional economy that approaches the statewide average is agriculture. Table 34 presents data on the Central Texas regional economy.

TABLE 34
PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
CENTRAL TEXAS REGION, 1976-1978

Source of income	Percentage of total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	1.60	.89
Mining	.16	.04
Construction	3.91	.61
Manufacturing	7.99	.52
Transportation, communication, and public utilities	3.45	.55
Wholesale trade	1.70	.27
Retail trade	6.35	.75
Finance, insurance, and real estate	1.95	.44
Services	7.08	.59
Total private earnings	34.19	.52
Federal civilian	7.69	2.55
Federal military	32.03	16.68
State and local	6.10	.78
Total government earnings	45.82	3.61
Total earnings	80.00	1.03
Property income	12.89	.85
Transfer payments	11.95	1.09
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Middle Rio Grande

The Middle Rio Grande region is the smallest of the 24 regions in population. The region includes nine counties with a total population of over 111,000. There are no metropolitan areas in the region. Val Verde County, which includes Del Rio, and Maverick County, which includes Eagle Pass, are the two most populous counties in the region with 29 percent and 22 percent of the total regional population respectively. The region accounts for .86 percent of the state total population but relatively low income levels hold its share of total state income down to .53 percent.

State and local government, agriculture, and retail trade are the largest sources of earnings in the Middle Rio Grande region. The economic sectors with the most notable relative significance in comparison with the state are agriculture, federal military earnings, federal civilian earnings, and state and local government earnings. Laughlin Air Force Base near Del Rio is the major federal installation in the region. Details of income sources in the Middle Rio Grande region are presented in Table 35.

TABLE 35
 PERCENTAGE OF TOTAL PERSONAL INCOME AND LOCATION QUOTIENTS,
 MIDDLE RIO GRANDE REGION, 1976-1978

Source of income	Percentage total personal income	Location quotient (Region/Texas)
Agriculture, forestry, fisheries, and other	9.46	5.28
Mining	3.59	.89
Construction	3.69	.58
Manufacturing	5.75	.37
Transportation, communication, and public utilities	5.02	.80
Wholesale trade	3.50	.55
Retail trade	8.67	1.02
Finance, insurance, and real estate	2.38	.54
Services	6.26	.53
Total private earnings	48.31	.74
Federal civilian	5.29	1.76
Federal military	6.27	3.27
State and local	11.24	1.44
Total government earnings	22.79	1.79
Total earnings	71.10	.91
Property income	16.26	1.07
Transfer payments	17.15	1.57
Total personal income*	100.00	1.00

*Totals do not add exactly because of the omission of several adjustments to income and because of rounding.

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Economic Dependence Ranking of Regions

Tables 36 through 49 show the extent to which each of the 24 state planning regions is dependent on a particular type of economic activity in comparison with the other regions. There are 14 tables, one for each of the 12 major sources of earnings plus one for property income and one for transfer payments. The tables rank the regions based on the percentage of total personal income that each region derives from the particular source of income.

Unlike many rankings, the most desirable location in these rankings is not necessarily at the top of the list. A ranking near the top of one of these lists may indicate that a region is excessively dependent on a single type of economic activity and in need of further economic development or diversification. Similarly, a ranking near the bottom of a particular list may indicate an economic development opportunity for a region within that economic sector.

At the same time, there is nothing magic about being ranked near the middle of a list or near the state average level for an economic sector. Differences in resource bases and in state or national policy create legitimate variations in economic patterns. Local specialization in economic activities has often resulted in enhanced economic efficiency. The relative ranking of a region may be used as a means of identifying further development needs or opportunities, or as a means of targeting local development programs (such as vocational training programs) toward economic activities of particular local importance.

TABLE 36

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM AGRICULTURE, FORESTRY,
FISHERIES, AND OTHER SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	Middle Rio Grande	9.46
2	South Plains	8.59
3	Panhandle	7.98
4	Concho Valley	6.24
5	Lower Rio Grande Valley	5.94
6	Golden Crescent	5.18
7	South Texas	4.64
8	West Central Texas	4.24
9	North Texas	3.91
10	Deep East Texas	3.37
11	East Texas	2.89
12	Heart of Texas	2.75
13	Coastal Bend	2.64
14	North East Texas	2.46
15	Permian Basin	2.10
16	Brazos Valley	2.00
17	Central Texas	1.60
18	Capital	1.58
19	Texoma	1.11
20	Alamo	1.08
21	Upper Rio Grande	.82
22	Gulf Coast	.62
23	North Central Texas	.51
24	South East Texas	.35
	State of Texas Average	1.79

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 37

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL
PERSONAL INCOME DERIVED FROM MINING SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	Permian Basin	22.16
2	North Texas	8.51
3	West Central Texas	8.48
4	Coastal Bend	8.23
5	Concho Valley	6.73
6	South Texas	6.72
7	Golden Crescent	6.20
8	Panhandle	6.11
9	Gulf Coast	5.77
10	East Texas	5.16
11	Middle Rio Grande	3.59
12	South Plains	3.57
13	Texoma	2.51
14	North Central Texas	1.93
15	North East Texas	1.30
16	Lower Rio Grande Valley	1.27
17	South East Texas	1.18
18	Alamo	1.14
19	Deep East Texas	.96
20	Heart of Texas	.84
21	Capital	.75
22	Brazos Valley	.69
23	Upper Rio Grande	.60
24	Central Texas	.16
	State of Texas Average	4.05

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 38

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM CONSTRUCTION SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	South East Texas	11.28
2	Gulf Coast	10.42
3	Coastal Bend	7.33
4	Golden Crescent	6.89
5	North East Texas	5.56
6	Permian Basin	5.50
7	Panhandle	5.49
8	Capital	5.20
9	East Texas	4.97
10	North Central Texas	4.67
11	Upper Rio Grande	4.48
12	Lower Rio Grande Valley	4.26
13	Concho Valley	4.25
14	Alamo	4.25
15	South Plains	4.24
16	Brazos Valley	4.11
17	Central Texas	3.91
18	Deep East Texas	3.78
19	North Texas	3.74
20	Heart of Texas	3.72
21	Middle Rio Grande	3.69
22	Texoma	3.66
23	West Central Texas	3.60
24	South Texas	3.07
	State of Texas Average	6.51

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 39

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL
PERSONAL INCOME DERIVED FROM MANUFACTURING SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	South East Texas	32.43
2	Texoma	23.75
3	North East Texas	21.53
4	Deep East Texas	20.82
5	North Central Texas	19.25
6	East Texas	18.15
7	Gulf Coast	17.40
8	Golden Crescent	17.03
9	Heart of Texas	13.84
10	Upper Rio Grande	12.77
11	Panhandle	12.36
12	North Texas	9.86
13	Capital	9.41
14	Lower Rio Grande Valley	9.28
15	Coastal Bend	9.15
16	Concho Valley	8.81
17	South Plains	8.74
18	Brazos Valley	6.60
19	West Central Texas	8.57
20	Permian Basin	8.49
21	Central Texas	7.99
22	Alamo	7.49
23	Middle Rio Grande	5.75
24	South Texas	3.74
	State of Texas Average	15.44

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 40

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM TRANSPORTATION, COMMUNICATION,
AND PUBLIC UTILITIES SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	South Texas	8.35
2	Upper Rio Grande	8.23
3	Panhandle	7.54
4	South East Texas	7.31
5	Gulf Coast	7.24
6	North Central Texas	7.21
7	Concho Valley	6.68
8	Permian Basin	6.37
9	North East Texas	6.03
10	Texoma	6.01
11	Heart of Texas	5.69
12	South Plains	5.49
13	West Central Texas	5.43
14	East Texas	5.28
15	Coastal Bend	5.21
16	Middle Rio Grande	5.02
17	Lower Rio Grande Valley	4.48
18	Golden Crescent	4.21
19	Alamo	4.07
20	North Texas	3.93
21	Deep East Texas	3.90
22	Brazos Valley	3.70
23	Central Texas	3.45
24	Capital	3.30
	State of Texas Average	6.26

Source: Developed from data compiled by the Regional Economic Measure-
ment Division, Bureau of Economic Analysis, U.S. Department of
Commerce.

TABLE 41

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM WHOLESALE TRADE SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	North Central Texas	8.88
2	Gulf Coast	8.19
3	South Plains	6.34
4	Panhandle	6.02
5	Permian Basin	5.66
6	Lower Rio Grande Valley	5.64
7	Upper Rio Grande	4.91
8	Alamo	4.43
9	South Texas	4.27
10	Coastal Bend	4.19
11	West Central Texas	4.06
12	Heart of Texas	3.75
13	South East Texas	3.71
14	North East Texas	3.66
15	Middle Rio Grande	3.50
16	North Texas	3.37
17	East Texas	3.31
18	Golden Crescent	3.09
19	Capital	3.08
20	Brazos Valley	2.91
21	Concho Valley	2.79
22	Deep East Texas	2.77
23	Texoma	2.65
24	Central Texas	1.70
	State of Texas Average	6.36

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 42

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM RETAIL TRADE SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	South Texas	14.00
2	Lower Rio Grande Valley	10.93
3	South Plains	9.95
4	Upper Rio Grande	9.70
5	North Central Texas	9.31
6	Coastal Bend	8.82
7	Middle Rio Grande	8.67
8	Capital	8.55
9	Alamo	8.46
10	Concho Valley	8.32
11	Panhandle	8.25
12	Gulf Coast	8.07
13	Permian Basin	7.93
14	Brazos Valley	7.92
15	Heart of Texas	7.86
16	East Texas	7.73
17	West Central Texas	7.59
18	Golden Crescent	7.57
19	North Texas	7.55
20	Texoma	7.49
21	South East Texas	7.43
22	North East Texas	7.38
23	Deep East Texas	7.05
24	Central Texas	6.35
	State of Texas Average	8.51

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 43

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM FINANCE, INSURANCE, AND
REAL ESTATE SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	North Central Texas	6.31
2	Gulf Coast	4.93
3	Alamo	4.49
4	Capital	4.38
5	Upper Rio Grande	3.63
6	Heart of Texas	3.56
7	South Plains	3.33
8	Lower Rio Grande Valley	3.10
9	Panhandle	3.00
10	Coastal Bend	2.95
11	Permian Basin	2.92
12	West Central Texas	2.66
13	South Texas	2.83
14	Brazos Valley	2.71
15	North Texas	2.65
16	Texoma	2.59
17	Concho Valley	2.50
18	East Texas	2.41
19	South East Texas	2.39
20	Middle Rio Grande	2.38
21	Golden Crescent	2.33
22	Deep East Texas	2.28
23	North East Texas	2.17
24	Central Texas	1.95
	State of Texas Average	4.41

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 44

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM SERVICES SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	Gulf Coast	14.25
2	Capital	13.59
3	North Central Texas	13.16
4	Alamo	11.80
5	Upper Rio Grande	11.28
6	Heart of Texas	11.07
7	South Plains	10.48
8	Coastal Bend	10.21
9	South Texas	9.76
10	Concho Valley	9.64
11	Lower Rio Grande Valley	9.50
12	West Central Texas	9.45
13	Permian Basin	9.41
14	East Texas	9.35
15	South East Texas	9.33
16	Panhandle	9.12
17	Brazos Valley	8.77
18	North East Texas	8.69
19	Texoma	8.53
20	Golden Crescent	8.46
21	North Texas	7.73
22	Central Texas	7.08
23	Deep East Texas	6.86
24	Middle Rio Grande	6.26
	State of Texas Average	11.92

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 45

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM FEDERAL CIVILIAN SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	Alamo	9.00
2	North East Texas	8.46
3	Central Texas	7.69
4	Upper Rio Grande	5.89
5	Middle Rio Grande	5.29
6	Coastal Bend	4.95
7	Capital	3.64
8	Heart of Texas	3.62
9	South Texas	3.56
10	North Texas	3.44
11	Lower Rio Grande Valley	2.64
12	North Central Texas	2.45
13	South Plains	2.23
14	Brazos Valley	1.88
15	West Central Texas	1.88
16	Concho Valley	1.87
17	Panhandle	1.77
18	Gulf Coast	1.72
19	Texoma	1.51
20	Permian Basin	1.41
21	Deep East Texas	1.30
22	Golden Crescent	1.01
23	East Texas	.90
24	South East Texas	.85
	State of Texas Average	3.01

Source: Developed from data compiled by the Regional Economic Measure-
ment Division. Bureau of Economic Analysis, U.S. Department of
Commerce.

TABLE 46

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM FEDERAL MILITARY SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	Central Texas	32.03
2	Upper Rio Grande	8.15
3	North Texas	6.52
4	Alamo	6.36
5	Middle Rio Grande	6.27
6	West Central Texas	3.37
7	Coastal Bend	2.95
8	Concho Valley	2.70
9	Capital	1.84
10	South Plains	1.44
11	Permian Basin	.49
12	North Central Texas	.45
13	Brazos Valley	.30
14	Lower Rio Grande Valley	.26
15	South East Texas	.23
16	South Texas	.22
17	Heart of Texas	.17
18	Golden Crescent	.16
19	Gulf Coast	.15
20	North East Texas	.15
21	Deep East Texas	.15
22	Panhandle	.14
23	Texoma	.13
24	East Texas	.13
	State of Texas Average	1.92

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 47

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM STATE AND LOCAL GOVERNMENT SECTOR, 1976-1978

Rank	Region	Percent of total personal income from sector
1	Brazos Valley	19.71
2	Capital	16.65
3	South Texas	13.73
4	Lower Rio Grande Valley	12.82
5	Middle Rio Grande	11.24
6	Upper Rio Grande	10.03
7	South Plains	9.04
8	Coastal Bend	8.95
9	Deep East Texas	8.80
10	Alamo	8.62
11	Heart of Texas	8.18
12	North Texas	7.81
13	West Central Texas	7.67
14	Concho Valley	7.63
15	Permian Basin	7.03
16	South East Texas	6.99
17	Panhandle	6.84
18	East Texas	6.74
19	Texoma	6.72
20	Golden Crescent	6.72
21	North Central Texas	6.62
22	Gulf Coast	6.40
23	North East Texas	6.31
24	Central Texas	6.10
	State of Texas Average	7.78

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 48

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM PROPERTY INCOME, 1976-1978

Rank	Region	Percent of total personal income from source
1	Brazos Valley	22.42
2	Concho Valley	21.89
3	West Central Texas	20.38
4	North Texas	20.28
5	Panhandle	19.87
6	Golden Crescent	19.70
7	Heart of Texas	19.66
8	South Plains	19.35
9	Texoma	18.95
10	East Texas	18.75
11	Capital	18.38
12	Lower Rio Grande Valley	18.26
13	North East Texas	17.63
14	Deep East Texas	17.56
15	Permian Basin	16.52
16	Middle Rio Grande	16.26
17	Alamo	16.18
18	Coastal Bend	15.43
19	North Central Texas	14.36
20	Central Texas	12.89
21	Gulf Coast	12.15
22	South East Texas	11.79
23	Upper Rio Grande	11.70
24	South Texas	11.21
	State of Texas Average	15.18

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 49

TEXAS STATE PLANNING REGIONS RANKED BY PERCENTAGE OF TOTAL PERSONAL
INCOME DERIVED FROM TRANSFER PAYMENTS, 1976-1978

Rank	Region	Percent of total personal income from source
1	South Texas	19.51
2	North East Texas	17.37
3	Middle Rio Grande	17.15
4	Deep East Texas	17.02
5	Lower Rio Grande Valley	16.73
6	Heart of Texas	16.39
7	Texoma	16.37
8	Alamo	16.31
9	Brazos Valley	16.03
10	Upper Rio Grande	15.46
11	West Central Texas	15.30
12	East Texas	14.35
13	North Texas	13.73
14	Concho Valley	13.16
15	Capital	12.95
16	Coastal Bend	12.74
17	Golden Crescent	12.30
18	Central Texas	11.95
19	South Plains	10.49
20	South East Texas	10.33
21	Panhandle	9.61
22	North Central Texas	9.30
23	Permian Basin	7.90
24	Gulf Coast	7.07
	State of Texas	10.93

Source: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Recapitulation of Regional Economies

The preceding sections have presented data on the economies of the 24 state planning regions and on the distribution of various economic activities in Texas. Tables 50 and 51 provide a summary of the most significant economic activities in each region and across the state. Table 50 shows the five largest sources of personal income for each region. Table 51 shows the most notable sources of income in relative terms based on comparison with the state economy. All sources of income with a location quotient of 1.15 or greater are shown in Table 51. Property income and transfer payments have been included where applicable in the summary tables. The preceding regional discussions generally concentrated on sources of earned income and omitted references to property income and transfer payments.

For brevity, abbreviations have been used for the various income sources. The abbreviations are as follows:

AGRIC	Agriculture, forestry, fisheries, and other
CONST	Construction
FEDCV	Federal civilian
FEDML	Federal military
FINAN	Finance, insurance, and real estate
MANUF	Manufacturing
MINES	Mining
PROPY	Property income
RETAL	Retail trade
SERVI	Services
SLGOV	State and local government
TRANS	Transportation, communication, and public utilities
TRPAI	Transfer payments
WHOLE	Wholesale trade

TABLE 50

LEADING SOURCES OF INCOME IN ABSOLUTE TERMS,
TEXAS STATE PLANNING REGIONS, 1976-1978

Region	First	Second	Third	Fourth	Fifth
Panhandle	PROPY	MANUF	TRPAY	SERVI	RETAL
South Plains	PROPY	TRPAY	SERVI	RETAL	SLGOV
North Texas	PROPY	TRPAY	MANUF	MINES	SLGOV
North Central Texas	MANUF	PROPY	SERVI	RETAL	TRPAY
North East Texas	MANUF	PROPY	TRPAY	SERVI	FEDCV
East Texas	PROPY	MANUF	TRPAY	SERVI	RETAL
West Central Texas	PROPY	TRPAY	SERVI	MANUF	MINES
Upper Rio Grande	TRPAY	MANUF	PROPY	SERVI	SLGOV
Permian Basin	MINES	PROPY	SERVI	MANUF	RETAL
Concho Valley	PROPY	TRPAY	SERVI	MANUF	RETAL
Heart of Texas	PROPY	TRPAY	MANUF	SERVI	SLGOV
Capital	PROPY	SLGOV	SERVI	TRPAY	MANUF
Brazos Valley	PROPY	SLGOV	TRPAY	SERVI	MANUF
Deep East Texas	MANUF	PROPY	TRPAY	SLGOV	RETAL
South East Texas	MANUF	PROPY	CONST	TRPAY	SERVI
Gulf Coast	MANUF	SERVI	PROPY	CONST	WHOLE
Golden Crescent	PROPY	MANUF	TRPAY	SERVI	RETAL
Alamo	TRPAY	PROPY	SERVI	FEDCV	SLGOV
South Texas	TRPAY	RETAL	SLGOV	PROPY	SERVI
Coastal Bend	PROPY	TRPAY	SERVI	MANUF	SLGOV
Lower Rio Grande Valley	PROPY	TRPAY	SLGOV	RETAL	SERVI
Texoma	MANUF	PROPY	TRPAY	SERVI	RETAL
Central Texas	FEDML	PROPY	TRPAY	MANUF	FEDCV
Middle Rio Grande	TRPAY	PROPY	SLGOV	AGRIC	RETAL
State of Texas	MANUF	PROPY	SERVI	TRPAY	RETAL

SOURCE: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

TABLE 51

LEADING SOURCES OF INCOME IN RELATIVE TERMS,
TEXAS STATE PLANNING REGIONS, 1976-1978

Region	First	Second	Third	Fourth	Fifth
Panhandle	AGRIC	MINES	PROPY	TRANS	
South Plains	AGRIC	PROPY	RETAL	SLGOV	
North Texas	FEDML	AGRIC	MINES	PRCPY	TRPAY
North Central Texas	FINAN	WHOLE	MANUF	TRANS	
North East Texas	FEDCV	TRPAY	MANUF	AGRIC	PROPY
East Texas	AGRIC	TRPAY	MINES	PROPY	MANUF
West Central Texas	AGRIC	MINES	FEDML	TRPAY	PROPY
Upper Rio Grande	FEDML	FEDCV	TRPAY	TRANS	SLGOV
Permian Basin	MINES	AGRIC			
Concho Valley	AGRIC	MINES	PROPY	FEDML	TRPAY
Heart of Texas	AGRIC	TRPAY	PROPY	FEDCV	
Capital	SLGOV	PROPY	FEDCV	TRPAY	
Brazos Valley	SLGOV	PROPY	TRPAY		
Deep East Texas	AGRIC	MANUF	PROPY		
South East Texas	MANUF	CONST	TRANS		
Gulf Coast	CONST	MINES	WHOLE	SERVI	TRANS
Golden Crescent	AGRIC	MINES	PROPY		
Alamo	FEDML	FEDCV	TRPAY		
South Texas	AGRIC	TRPAY	SLGOV	MINES	RETAL ¹
Coastal Bend	MINES	FEDCV	FEDML	AGRIC	TRPAY ²
Lower Rio Grande Valley	AGRIC	SLGOV	TRPAY	RETAL	PROPY
Texoma	MANUF	TRPAY	PROPY		
Central Texas	FEDML	FEDCV			
Middle Rio Grande	AGRIC	FEDML	FEDCV	TRPAY	SLGOV
State of Texas ³	MINES	FEDML	CONST	WHOLE	

¹Also TRANS, FEDCV

²Also SLGOV

³In comparison with the nation.

SOURCE: Developed from data compiled by the Regional Economic Measurement Division, Bureau of Economic Analysis, U.S. Department of Commerce.

Local Economic Development Allies

In one sense, every location in Texas (and elsewhere) is in competition with every other locale for economic development. With so many communities competing for a "slice of the economic pie", the odds would seem to be against a particular community at first glance. One way to help "even up the odds" is through the cooperation of economic development allies.

Economic development allies are found in both the public and private sectors. A number of federal agencies have programs designed to facilitate local economic development. At the state level, the Texas Industrial Commission is particularly active in the promotion of economic development. Several of the regional councils of government have become involved in economic development promotion, and recently an increasing number of county, city, school, and special district units of government have become directly involved in economic development promotional activities.

Within the private sector, the pioneer allies of local economic promotional efforts were the railroads. Later on, electric and natural gas utilities became active in local development promotion. In most cases, these organizations have remained active in the promotion of development within their respective service areas. Most local areas also have a chamber of commerce, an economic or industrial foundation, or both. In addition, there are four regional chambers of commerce which serve larger areas of the state.

Regional Population Projections

Several factors will influence the future population trends of the Texas state planning regions during the next 20 years. These factors include the demographic characteristics of the population, the resource constraints of the region, the existing economic development pattern of the region, and the future economic development pattern of the region. Population forecasting is at best an inexact science. At the local level, the basic components of population change are natural change (the relationship of births and deaths) and migration. It is possible to project the natural change in population with reasonable accuracy based on the demographic characteristics of the population. Migration is the component of population change that is difficult to project. People migrate from one area to another for a wide variety of reasons which cannot readily be predicted by scientific methods.

The state agency responsible for the development of local population forecasts in Texas is the Department of Water Resources, which is in itself a reflection of the fact that water availability is a definite concern in many parts of the state. The most recent set of population projections developed by the department were formulated during 1979 and published in early 1980. The most recent population estimates available to the department for use in the development of the projections were estimates as of July 1, 1976. The Department of Water Resources uses traditional and reliable methods for the estimation of natural change. Estimates of migration are based on the selection of a historical migration rate from earlier decades. The migration rate selected for each region is the one which most closely approximates the latest time period for which estimates are available from the U.S. Bureau of the Census. For the current set of projections, this was the

period from 1970 through mid-1976. One problem with the method is that it makes no provision for sharp changes in trends. Unfortunately, changes in trends have occurred in local areas of Texas a number of times in the recent past. Table 11 shows that 12 of the 24 state planning regions experienced declines in population during one of the two decades between 1950 and 1970. Although all of the regions have gained population since 1970, the rates have varied and have only rarely been consistent with the rates of earlier time periods.

In order to take into account the availability of more recent data, the imposition of natural resource constraints, quality of life considerations, and informed opinion regarding probable future economic developments, another set of regional population projections has been developed as a part of this report. These projections are presented in Table 52. The population totals for the state conform closely to the totals developed by the Department of Water Resources after adjustment for the slightly lower growth rate experienced through 1978. A comparison of the average annual compound growth rate projected for the 1970s by the Department of Water Resources and the actual growth rate through 1978 is presented in Table 53, which also shows the corresponding growth rates projected for the 1980s by the Department of Water Resources and project staff. The growth rates used for the projections shown in Table 52 beyond 1990 are based on downward adjustments of .1 percent per year in the 1980-1990 annual compound percentage growth rates which is generally consistent with the Department of Water Resources projections at the state level, but not at the regional level.

The projections reflect a general belief that the eastern portion of Texas will experience continued or accelerated population growth, but that the growth rate in most of western Texas will slow. The principal

TABLE 52
PROJECTIONS OF POPULATION FOR TEXAS STATE PLANNING REGIONS
THROUGH THE YEAR 2000

Region	1970	1980	1990	2000
Panhandle	330,316	349,982	367,880	382,863
South Plains	327,777	349,369	367,235	382,192
North Texas	211,229	214,633	225,609	234,798
North Central Texas	2,506,617	2,929,156	3,399,405	3,906,452
North East Texas	203,342	222,182	257,851	296,312
East Texas	436,119	517,212	695,090	925,113
West Central Texas	280,081	295,872	311,003	323,669
Upper Rio Grande	379,261	483,595	534,190	584,261
Permian Basin	305,181	325,932	322,691	316,307
Concho Valley	110,250	121,303	140,777	161,775
Heart of Texas	227,631	245,291	329,651	438,740
Capital	446,602	608,404	741,641	895,232
Brazos Valley	129,494	156,773	210,690	280,412
Deep East Texas	215,836	256,473	344,678	458,741
South East Texas	347,568	367,895	406,385	444,477
Gulf Coast	2,305,106	3,103,890	3,602,191	4,139,485
Golden Crescent	142,379	151,607	203,747	271,172
Alamo	1,006,504	1,208,999	1,473,763	1,778,974
South Texas	99,572	122,934	142,670	163,950
Coastal Bend	420,360	444,945	569,567	722,012
Lower Rio Grande Valley	337,473	452,216	524,815	603,095
Texoma	129,401	132,673	169,833	215,288
Central Texas	206,095	270,062	345,702	438,229
Middle Rio Grande	94,461	115,373	127,444	139,389
Total Texas	11,198,655	13,446,771	15,814,508	18,502,938

Source: Industrial Economics Group, Center for Strategic Technology,
Texas A&M University System.

TABLE 53

COMPARISON OF ACTUAL AND PROJECTED POPULATION GROWTH RATES AND OF FUTURE
PROJECTED GROWTH RATES, TEXAS STATE PLANNING REGIONS, 1970s and 1980s

Region	1970s		1980s	
	DWR* projected growth rate	Actual 1970-1978 growth rate	DWR* projected growth rate	Project Staff pro- jected growth rate
Panhandle	.76	.58	.77	.50
South Plains	1.11	.64	.92	.50
North Texas	1.04	.16	.97	.50
North Central Texas	1.53	1.57	1.58	1.50
North East Texas	1.12	.89	.91	1.50
East Texas	1.94	1.72	1.75	3.00
West Central Texas	.98	.55	.76	.50
Upper Rio Grande	2.57	2.46	1.81	1.00
Permian Basin	.95	.66	.93	.10
Concho Valley	1.07	.96	.89	1.50
Heart of Texas	1.11	.75	.80	3.00
Capital	3.47	3.14	2.75	2.00
Brazos Valley	1.93	1.93	1.11	3.00
Deep East Texas	1.77	1.74	1.62	3.00
South East Texas	.77	.57	1.12	1.00
Gulf Coast	2.86	3.02	2.36	1.50
Golden Crescent	.96	.63	.90	3.00
Airamo	1.77	1.85	1.57	2.00
South Texas	2.33	2.13	1.98	1.50
Coastal Bend	.89	.57	.87	2.50
Lower Rio Grande Valley	3.41	2.97	2.24	1.50
Texoma	.56	.25	1.11	2.50
Central Texas	2.69	2.74	1.77	2.50
Middle Rio Grande	2.40	2.02	1.92	1.00
Total Texas	1.92	1.84	1.70	1.64

*Texas Department of Water Resources

SOURCE: Population Projections for Texas (Report LP-126), January 1980; Current Population Reports (Series P-25, No.867), November 1979; and Industrial Economics Group, Center for Strategic Technology, Texas A&M University System.

reason for the slowdown of growth in western Texas is the diminishing water supply. The growth rate for several of the state planning regions in western Texas has already dropped below expectations, as shown in Table 53. In a number of these regions, the agricultural sector has economic importance well above the state average level. Agricultural production in most of these same areas has been sustained by using ground water at a rate higher than the recharge rate of the underground aquifers. The result has been a continual lowering of the water table, which has increased pumping costs in the short run and will lead to the depletion of the supply in the long run. This problem is particularly pronounced in the Panhandle and South Plains regions and in portions of the Middle Rio Grande region, but affects other areas as well. The only region for which an absolute decline in population is projected is the Permian Basin region, which derives a large portion of its income from oil and gas production which is likely to decline in the future and which also has a water supply problem.

The regions that are expected to grow most rapidly in percentage terms are the regions in the eastern portion of Texas that are centered around small and medium sized cities. These communities and surrounding regions offer a favorable quality of life combined with an adequate resource base, and should be among the leading growth areas of the nation in the years to come. The regions projected to grow at the highest rates are the East Texas, Heart of Texas, Brazos Valley, Deep East Texas, and Golden Crescent, followed closely by the Coastal Bend, Texoma, and Central Texas regions.

It should be kept in mind that population changes are highly dependent on economic events. Any population projections are based on a set of assumptions which may or may not prove to be true. The population

projections presented here assume that most communities in Texas will encourage economic development and that economic development will occur in those areas which offer physical and human resources adequate to sustain the economic development process. The projections should be regarded as a view of what is likely to happen in Texas if economic development efforts continue as may reasonably be expected.

APPENDIX

APPENDIX 1

COMPONENT COUNTIES OF TEXAS STATE PLANNING REGIONS

1. <u>Panhandle</u>	3. <u>North Texas</u>	6. <u>East Texas</u>	9. <u>Permian Basin</u>
Armstrong	Archer	Anderson	Andrews
Briscoe	Baylor	Camp	Borden
Carson	Childress	Cherokee	Crane
Castro	Clay	Gregg	Dawson
Collingsworth	Cottle	Harrison	Ector
Dallam	Foard	Henderson	Gaines
Deaf Smith	Hardeman	Marion	Glasscock
Donley	Jack	Panola	Howard
Gray	Montague	Rains	Loving
Hall	Wichita	Rusk	Martin
Hansford	Wilbarger	Smith	Midland
Hartley	Young	Upshur	Pecos
Hemphill		Van Zandt	Reeves
Hutchinson		Wood	Terrell
Lipscomb	4. <u>North Central Texas</u>		Upton
Moore		7. <u>West Central Texas</u>	Ward
Ochiltree	Collin		Winkler
Oldham	Dallas	Brown	10. <u>Concho Valley</u>
Parmer	Denton	Callahan	Coke
Potter	Ellis	Coleman	Concho
Randall	Erath	Comanche	Crockett
Roberts	Hood	Eastland	Irion
Sherman	Hunt	Fisher	Kimble
Swisher	Johnson	Haskell	McCulloch
Wheeler	Kaufman	Jones	Mason
	Navarro	Kent	Menard
2. <u>South Plains</u>	Palo Pinto	Knox	Reagan
Bailey	Parker	Mitchell	Schleicher
Cochran	Rockwall	Nolan	Sterling
Crosby	Somervell	Runnels	Sutton
Dickens	Tarrant	Scurry	Tom Green
Floyd	Wise	Shackelford	
Garza		Stephens	11. <u>Heart of Texas</u>
Hale	5. <u>North East Texas</u>	Stonewall	Bosque
Hockley		Taylor	Falls
King	Bowie	Throckmorton	Freestone
Lamb	Cass		Hill
Lubbock	Delta	8. <u>Upper Rio Grande</u>	Limestone
Lynn	Franklin		McLennan
Motley	Hopkins	Brewster	
Terry	Lamar	Culberson	
Yoakum	Morris	El Paso	
	Red River	Hudspeth	
	Titus	Jeff Davis	
		Presidio	

APPENDIX 1 (Continued)

COMPONENT COUNTIES OF TEXAS STATE PLANNING REGIONS

12. <u>Capital</u>	16. <u>Gulf Coast</u>	20. <u>Coastal Bend</u>
Bastrop	Austin	Aransas
Blanco	Brazoria	Bee
Burnet	Chambers	Brooks
Caldwell	Colorado	Duval
Fayette	Fort Bend	Jim Wells
Hays	Galveston	Kenedy
Lee	Harris	Kleberg
Llano	Liberty	Live Oak
Travis	Matagorda	McMullen
Williamson	Montgomery	Nueces
	Walker	Refugio
13. <u>Brazos Valley</u>	Waller	San Patricio
Brazos	Wharton	
Burleson	17. <u>Golden Crescent</u>	21. <u>Lower Rio Grande Valley</u>
Grimes	Calhoun	Cameron
Leon	DeWitt	Hidalgo
Madison	Goliad	Willacy
Robertson	Gonzales	
Washington	Jackson	22. <u>Texoma</u>
	Lavaca	Cooke
14. <u>Deep East Texas</u>	Victoria	Fannin
Angelina	18. <u>Alamo</u>	Grayson
Houston	Atascosa	
Jasper	Bandera	23. <u>Central Texas</u>
Nacogdoches	Bexar	Bell
Newton	Comal	Coryell
Polk	Frio	Hamilton
Sabine	Gillespie	Lampasas
San Augustine	Guadalupe	Milam
San Jacinto	Karnes	Mills
Shelby	Kendall	San Saba
Trinity	Kerr	
Tyler	Medina	24. <u>Middle Rio Grande</u>
15. <u>South East Texas</u>	Wilson	Dimmit
Hardin	19. <u>South Texas</u>	Edwards
Jefferson	Jim Hogg	Kinney
Orange	Starr	LaSalle
	Webb	Maverick
	Zapata	Real
		Uvalde
		Val Verde
		Zavala